California Plots IT Makeover State CIO proposes

changes after Oracle contract debacle

OY MARC L. GONOINI Thirteen months after Californis's centralized IT seency collapsed amid a political scandal triggered by a \$126 million Oracle database licensing deal, state CIO I, Clark Kelso said progress has been made in reorganizing the way technology is procured. But it will still take years to fully resolve the problems that to light by the he added. Kelso, who been overseeing California's multihillion-dollar IT spending

May 2002 after the Oracle scandal had erupted, last week discussed a set of legislative proposals as well as steps that the state is already taking to

the security of electronic transactions will cost the banking and retail California, page 47 Industries hillions of dollars in hardware and software and require several years of intensive work to complete.

BY LUCAS MEARIAN AND PATRICK THIBODEAU

A mandate by credit card

companies and related funds

transfer petworks to upgrade

MasterCard International dent of network administra-Inc., Visa U.S.A. Inc. and asso- tion at San Diego-based Star

Encryption Mandate Puts Strain on Financial IT Efforts by retail, banking industries to upgrade ATMs and servers will take years, cost billions ciated octwork providers have

extablished deadlines starting in 2004 for comparting along tronic funds networks to the Triple Data Encryption Standard. The DES cryptology alexcithm currently in use has become vulnerable to attacks as a re-

sult of increases in computing power, those oneanivations say. Beth I von senior vice mesi-

Sustains too the nation's largest debit network, said it mon't be lone before "it will become easy to buy a DES cracker and break those lencryption! keys."

There have been no reports to date of DES-related breaking Instead backers have attempted to exploit other network weaknesses. "It's a whole lot easier to find a Windows [or] Unix vulnerability," said Ryan Kalember, a security expert at Guardent Inc. in

Waltham, Mass In much the same way that Encryption, page 47

Feds Suspend MCI From Contract Bids

Investigators also probe call-routing allegations by rivals

WorldCom Inc. last week was prohibited from competing for new federal contracts and found itself embroiled in vet another investigation, this one involving allegations that for years it has illegally routed

phone calls to avoid paying natural society from to plunte The U.S. General Services Administration said it sus

pended WorldCom's eligibility to compete for new contract bids after determining that the company, which now operates under its MCI brand name. has yet to adequately revamp its internal accounting cootrols and business ethics.

Hord Tipton, CIO at the Department of the Interior, said the GSA's decision could have "a big impact" on his agency's IT operations. "We have all sorts of contracts with MCI that are subject to renewal coming up the first of October," he said. "The big cost would be in dollars and time to migrate to another carrier." Tinton added that GSA officials met with agency heads

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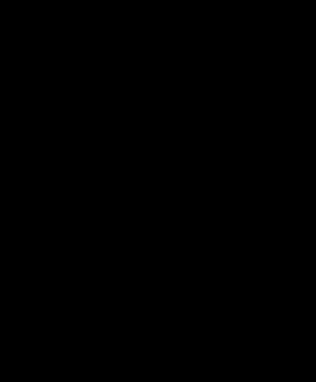
TIME TO UTSOURCE ERP?



There's growing interest in offloading the hassles of ERP software

to service providers, since the technology doesn't provide much competitive advantage anymore. But some CIOs say that outsourcing the "brains" of the company is just too risky. Page 33

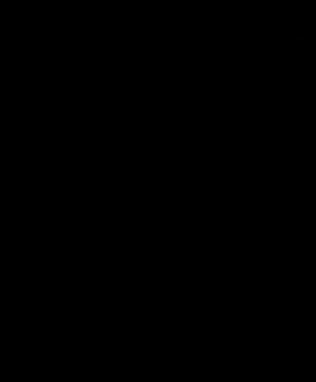




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Avoid Config Policy Potholes

In the Technology section: Configuration tools are plentiful and can be real time-savers, Time Warner Cable's George Geddis (left) found. But if you lack documented procedures on how to use them for each system and ap-plication, you could end up wasting your time. Page 19



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Breaking the Paper Habit

In the Management section: Hunturaton Bancchange replaced paper reports with a Webbased system, but it didn't count on resistance from managers who loved setting those 200,000 pieces of paper. Page 35

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A Good Defence for Offi

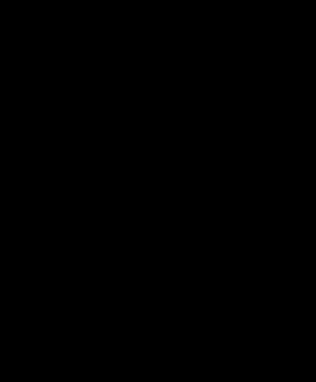
REPUBLIC Day Makes at Thomas Pate prise Solutions suggests ways to protect you inization from offensive materials like ornography that can put your company at against. © October 1 200000

and Arthur Directory Pitfalls

PERATING SYSTEMS: Dealing with consistration issues in advance will help your operating system upgrade go



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A Good Defense for Offense

SECURITY Ron Nahort at Tancram Fater. prise Solutions numerate ways to protect your organization from offensive materials like pornography that can put your company at

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Avoid Active Directory Pitfalis OPERATING SYSTEMS: Dealing with contentious administration issues in advance will help your operating system upgrade go more smoothly says Xeyos' Mark Hypes.

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Sponsor Pulls the Plug on UCITA

ing widespread political oppo-ion to UCITA, the National Conre State Laws (NCCUSL) on ss. I pulled its support of the ew and will no longer seek its

leption by state legislatures. One top official of the Chica d group called the action Il bies boe Test and from intense, wide ition to the Uniform

ed Intense and Inco tion of on es, and the alles they have stated," said MCCUSL at King Burnett in a let riday to the organization's issioners. NCCUSL is finan-

de emerated by the state and make MCCCCCC hard be me "embrolled in a political de But he reiterated support for UCI-

TA, noting that it will remain in ce as a legal resource. Cartyle Ring, who headed the per distanded UCITA drafting es, said the act will reantial bacause it was ed in Virginia and Maryland. to said it will continue to serve as

a point of reference for courts ring such issues. The law is evolving, and it ap-

it point wasn't lest on oce its, who said they will cont nbat the Scanning law, rules give vendors too much

'As long as it's out there, p is have to worry about it," said friem Hisbot, legislative cours tion and a load sees and ace

AT DEADLINE HIP Uses Siebel Tools To Unify CRM System

Project replaces Bonadio on analyst at Meta Group Inc. in Stamford Conn.

of calce marketing and partner management applications from Siehel Systems Inc The deal with Siebel is HP's second attempt to create a consolidated system for its sales force. In August 2000 Oracle Corp. appounced an in-

said it expected the application to be rolled out globally by the end of last year. HP changed the plan to standardize its sales processes on Oracle's software after acquiring Compag Computer

Mike Overly, vice president of customer operations at HP. said an analysis done after the Compag deal showed that Siehel's technology was more advanced than rival products. Using the Siebel applications gives HP "an opportuni-

ty to improve the customer experience forter" he mid adding that Oracle's software was one of many legacy CRM systems that were retired." Oracle said its technology produced "significant cost savings for HP.* The software vendor added that it was "disappointed HP decided to go with another CRM vendor for their merged company," but said it continues to partner with and support HP.

In all, HP plans to transition about 90 existing CRM and partner relationship manage-

ware. Overly said. The project involves installing software for more than 16,000 internal end users. In additioo, about 130,000 people at HP's resellers and distributors will have access to Siebel's collabprotive sales and marketing tools via a Web portal Overly declined to disclose the cost of the project. But he

ment eveteme to Sighel's soft

exid that consolidating on San Mateo, Calif.-based Siebel's applications will save HP tens of millions of dollars as a result of reduced IT maintenance costs and product sim-

We're living proof of having too many siloed solutions.

MIKE OVERLY UP OF CUSTOMER OPERATIONS, HEWLETT-PACKAGO

IRS Database Upgrade Delayed Again the project in 60 to 90 days The contractors being led

by CSC include IBM, Bearing-Point Inc., Northrop Grummon Information Technology Unisys Corp. and Science Applications International Corp. The IRS said the taxpayer database in question is based on DB2 technology from IBM.

IBM declined to comment. CSC issued a statement shout the IPS review but said it wouldn't comment further. The company said it's confident CADE will be in place in time for the 2004 income tax season. CSC also said it wel-

comes the review by Carnegie Mellon. The contractor group is "eager to share its experiences and perspectives" with the university team, CSC said. "This most recent setback is a serious matter," Eversoo said in a statement. "The CADE project has had a number of

nlification, and it's expected to newfuce increased sales and higher customer-satisfaction

"We're living proof of having too many silend solutions." Overly said. He added that HP expects to get a return on its Sighel investment by the secand half of next year The company has been using Sighel's sales automation software since May. The next sten is to install integrated marketing and call center anplications by the first half of next year. After that, HP plans to add Siebel's analytical software supported by a global data warehouse to conduct

more sophisticated customer analysis, according to Overly. It might be risky to install so many applications so quickly. noted Joshua Greenbaum, an analyst at Enterprise Applications Consulting in Daly City,

Calif. Internal politics, conflicting international business requirements and "plain-old corporate inertia make these kind of projects more failure-prone than most companies like to admit " he said &

deless over the past several years - too many delays." CADE is eventually intended to bouse tax information from more than 200 million. U.S. taxpayers. It will replace a magnetic tape-based system that the IRS began using about

40 years ago.

The old system, called the Master File, takes a week for records undates, causine delays in providing accurate account data on taxpayers. After the first delay the IRS renegotiated the terms with the contractors working on the CADE project. The IRS spokesman said he wasn't aware of any efforts to further renegotiate the contract.

Gross writes for the IDG News Service



earlier Oracle deal ---Hewlett-Packard Co. expects

to save millions of dollars in IT costs, standardize business processes and create a single a large-scale implementation

stallation of its Oracle Sales Online software at HP and

in less than raw years

The IRS last week an

agency had originally planned

to move the first group of tax-

payers, about 6 million Form

1040 EZ filers, to the new sys-

tem in 2001, before the project

was delayed until this August.

The problems with the tran-

The U.S. Internal Revenue through the Software Engi-Service has delayed a project neering Institute of Carnegie Mellon University in Pittsdatabase for the second time burgh. The review will look at the performance of a team of contractors led by Computer nounced it has delayed the Sciences Corp. (CSC) in El Sefirst phase of its Customer Acounds Calif and the spency's count Dass Engine (CADE) management of the contract since it was signed more than project from August 2003 to March or April 2004. The

four years ago The IRS has asked the institute to recommend chappes to

CADE Budget

sition center around the "juxtaposition of the old system to the new system," said an IRS spokesman, who declined to elaborate. IRS Commissioner Mark W. Everson said last week that the arency has faunched an inde-

Vendors Offer Plan for Disclosing Software Security Holes

have been at loomerheads over Water period to find a fix Security researchers say their concerns the procues of full disclorure were ignored, slam vendor 'loopholes' under which vulnerability in-

BY OAN VERTON AND

A multivandor team lad by Microsoft Corp. last week released new guidelines for security vulnerability reporting and response. But critics of the effort faulted it for its lack of nonvendor buy-in. The voluntary group of II security companies and software developers, known collectively as the Organization for Internet Safety (OIS), has been engaged in a yearlong offort to standardize the process stanish mblat as make as searchers and software vendors work together on finding. fixing and releasing information about software vulnerabilities to the public In the past, software vendors and security researchers formation is publicly released before vendors have a chance to respond to it. Key elements of the process

approved last week include a requirement for vendors to set up an established point of contact for receiving vulnerability information and a provision that wendors should respond within seven days to a vulnerability report.

The process also sets forth a predefined and general de-

during which the vulnerability information won't be publicly disclosed by the finder and a 30-day grace period after a fix has been issued before supplemental details such as exploit code can be released by the

finder. The OIS guidelines are an effort to create a process that is acceptable to vendors and researchers and keeps the security interests of users at the

forefront, said Scott Blake. vice president of information security at Houston-based BindView Corp., one of the members of the OIS.

scription of spam and not on a "The process relies on good user-specific definition of the faith by both parties," Blake said. "Users' interests are the primary consideration."

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THOS I ARRIVE M SECURITY DESTABLISHED DAY SOLUTIONS

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"In most cases, when a security has is announced by a (finder), the same [finder] gives an efficient solution to the problem " Guninski said noting the lag time built into the OIS mudelines. Scott Cule senior security

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*Hiding information about burs hurts ordinary users and

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Open-Source Spam-Blocker **Gets High Marks at Cornell**

NIR TAKE

d Marylean Johnson

When the scademic year heeins this fall, students at Cornell University's Johnson Graduate School of Manas ment will be armed with what its CIO sees as a nowerful new weapon to battle spam.

For the past two months, the school's IT organization has been beta-testing an open source tool called the Snam-Bayes Outlook Plug-in and is preparing for a broad rollout.

The SpamBayes tool blocks spam using a unique form of statistical analysis that's far more efficient and customizable than any commercially available antispam product, according to Larry Fresinski, the school's CIO

"It's been extraordinarily effective," he said. "It catches 99% of my spam," Fresinski said he has contacted 20 other business schools to inform them about the tech-

The university has been testing the SpamBayes Outlook Plug-in with Microsoft Corp.'s Outlook XP, Outlook 2003 Reta and an Exchange 2000 server. Cornell's management school is a beta tester of Outlook 2003, which like other e-mail products. comes with its own antires



SpamBayes, the Ithaca, N.Y.hased school has recommended the sporoach to Microsoft. Fresinski said SnamRayes is the name of

an open-source project working to develop an antispom filter based on Bayesian theory, a method of statistical analysis.

meanie and urger offer The approach is OOs to share fleer space stones. Page 16 different from traditional antispam technologies that use predefined rules to look for specific features or words

in mail beaders and body text to identify unsolicited mail. Many of these technologies also use blacklists to block mail from certain addresses The problem with such approaches is that they rely on a term. Fresinski said. SpamBaves first analyzes a meet's logitimate a med and soom mail for clues as to what makes each different. It then applies those clues to the readers, content and style of

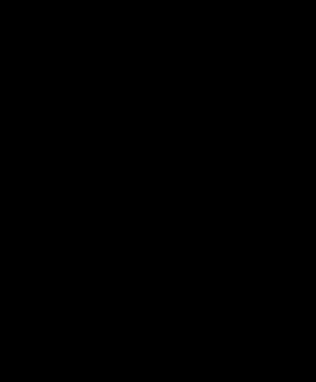
incoming messages to determine whether they are spam The greater the number of initial samples and the broader the variety, the more quickly Bayesian filters can be "trained" to recognize spam said Brian Burton, president of Burton Computer Corp., a

consultancy in LaVale, Md The company has developed on open-source tool called SpamProbe, which uses simi lar techniques to block spam. "That is one of the weak nesses of this approach." Burton said. You've got to get it

to a noint where it can start making the right decisions." Although SpamBayes won't prevent Cornell's mail servers from getting spammed, it will allow end users to weed out spam more effectively. Fresinski said. So far, there hasn't been one instance in which the software has stooped legitimate mail from petting

through or failed to stop spam. he said. "It's open-source software It's free," Fresinski said. "The beauty of it is that it continual by learns what is snow to you. and not [to] some external

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Vendors Offer Plan for Disclosing Software Security Holes

Security researchers say their concerns were ignored, slam vendor 'loopholes' lectively as the Organization

BY DAN YERTON AND JANKUMAR YAMANAN

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BRIEFS

IBM. ABB Widen Outsourcing Deal

RM assessment a 10-year \$1 I hillion outsourcing agree ment with The ABS Group, a Zurich-hased maker of newer strial automation prod ucts. The deal covers about 80% of ABB's IT operations and expands a pair of pilot contracts, valued at \$800 million, that were signed in late 2001 for reden and India.

Sun Resumes

Server Shipments Sun Microsystems Inc. said it has fixed a data come lem on its new Sun Fire Y210 and V240 servers and resumed ments of the low-and Unix ms. Sun had stopped ship in the servers on June 23 atter discovering a flaw involving their Ethernet ports. In another otter, Sen this month plans to sese a Solaris update that in des the open-source GNOME

2.0 desktop user interface. Cisco Warns of Wireless Flaws

Cisco Systems Inc. warned use about two security holes that af-fect the settware used in some versions of its Aircost wirek cass-point technology. The h designed to fix the flows and said that attackers could ts via denial-of-service

ks or steal user account s from the devices. **Short Takes**

SAP AS said it has recrea its application develop teams into three product grou olos a fourth that's responsib for overall application architecture... SUN. ORACLE CORP. and three other vendors rei end standard for orchesng the use of Web services

MARK HALL . ON THE MARK

Iava Handhelds 'A Bigger Security Problem ...

than the desktop," claims Shlomo Touboul, founder and CEO of Finian Software Inc. Given the relatively limited hardware canabilities of these small devices, he says, "when they put lava into the handset, they took out most of the security in the IVM [lava virtual machine]." While that may be little more than a self-serving observation from the San lose-based data security firm, it's worth considering as companies begin distributing lava phones and PDAs to mobile workers. It's also worth pondering by the network providers that may become a legal target of those who lose precious data due to crossstems Inc., which, while marks not

ias security. Touboul argues that less technically sophisticated handheld users have wantly different expectations of the providers that offer "air-time services" and the devices that consume them. He says that PC makers "are considered

blameless" if a virus destrove a disk drive. Not so for handsets. "When it comes to air time. I expect my providers to protect [the device]," he concluder Needber to en-Finian promises an anower with its Viral Security for Cellular product, in beta now at an unnamed should bit the market in

the fourth quarter. . If the handheld equivalent of the Nimda virus strikes lava phones, it could be a buge problem for Sun Mi-

bettion the farm on the market, has at least wagered the back 40. Gina Centoni, vice president of the developer network at

Openwave Systems Inc. in Redwood City. Calif., points out that Sun has the dominant position today with the telcos. which have made heavy investments in Solaris in their data centers and use it to deliver profitable serwiose to hundrete This

gives the creators of lava a huer advantage Her company builds tools for cell phone and PDA application developers who are overwhelmingly creating lava ages. But that could change, she acknowledges, "Can Sun lose it?" the asks. Sadly, "yes, it's ponsible," she says. The threat is real, particularly with enterprises that are

petting comfortable with .Not for client-side deployment. It would be a bitter from for Sun supporters to lose out to Microsoft in a big market because of security problems. The security battle between SSI. and IPsec is nicking up steam again as SSL propoperate point out that because IPsec encrypts data at the packet level, the protocol can't analyze the content, the next fromtier for data security SSI serambles the bits higher up the stack, so it can pursue the data to see if there's a virus hiding amid the encrypted info. That's inst what Emergeille Calif Josef SafeWeb Inc will offee in the unders to its corneity reali. once in mid-August One SEA Transmi 4.0 unit can bandle 500 concurrent users and costs \$9.995. . Get Linux? Get maintrame? Stop by the Linuxcare Inc. booth tomorrow at LinuxWorld in the company's hometown of San Francisco for a sneek neek at Levanta 20, which will be formally announced next week. The Linux provisioning software for IBM zSeries mainframes adds improved application management, distinct roles for systems and network administrators, and an improved GUI among other uperades. It also adds best practices in the form of templates for preven ways to configure a Linux partition on big iron. All this and more for SISOk. . A truly wireless computing experience would eliminate the power cond from your PC and that's just what BA Technologies Inc. in Las Vegas has done-

www.computerworld.com

The custom-made machines use a special Ethernet bub so deliver electricity on the four unused wires in the standard eightwire cable that connects a PC to a network port. At \$1,000, it's a bit more costly than a power-cord-bound desktop. And the hub goes for about \$50 per port. Still, for some of you, getting rid of some of the tangle around your feet will be well worth it \$

CERT to Lead Project to Promote Sharing of Security Information

Carnegie Mellon University's CERT Coordination Center. security event management software vendor ArcSight Inc and these universities and teaming up to belp improve Information sharing among security organizations. The eroup will undertake

what it's calling the Cyber Security Information Sharing Project. Its purpose is to conduct research and development aimed at improving companies'

ability to identify and respond to cyberattacks using information gathered from throughout the security community Group members hope to ultimately create a set of best practices for the federal government's Information Sharing

according to a joint statement released last week from CERT and ArcSight. CERT will act as the project coordinator, and Sunnyvale Calif.-based ArcSight will do-

partners CERT and each of the three universities, which have yet to be named, will install ArcSight's event correlation and management software to monitor and appregate relevant information from and Analysis Centers initiative, firmedly introvioudetection systems and other security tools CFRT will consolidate

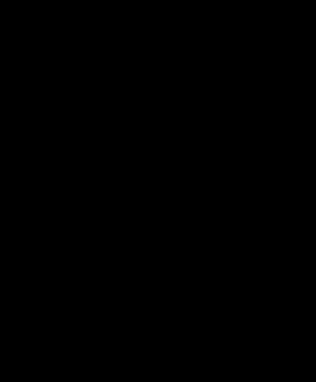
> and analyze the information to identify threats. The project will provide an opportunity to test and en

bance emerging security datasharing standards such as the Incident Object Description and Exchange Format and the Intrusion Detection Message Exchange Format, said Larry Lunneta, a director at Arc-Sight. Both have been submit ted as standards to the Inter-

net Engineering Task Force. "We anticipate a significant amount of published work to come out of this effort" related to security information sharing and standards/Lunneta said.



For angoing coverage of IT security issues. OntekLink 11800



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Keep bad things from reaching users and you'll get noticed for all the good you do. One way is to use an LSSO0 automated tape library with Tape Mirroring software for foolproof backup and restore. Or a DSSO dais system with Remote Valume Mirroring software so system rebound fast. Whatever your solution, we'll make user you only get noticed when you went. Learn more booth this topy and other ways we can help you at www.savertheedsy.com.

Microsoft Lays Out Tools Road Map

New releases to coincide with Yukon, Longhorn

last week at the VS Live conference in New York detailed productivity, scalability and performance enhance-

ments that are planned for the next two versions of its Visual Studio Net development tools

The next edition of Visual Studio, codenamed Whidher just came out in beta and is synchronized to the SOI Server release code-named Yukon. The follow-on tools release, codenamed Orces is linked to the next version of the Windows operating system, which is code named Longborn

Eric Rudder, senior vice

at Microsoft, peezed the Yukon/Whidhey release for late 2004 but he said he wouldn't comment on any Longborn/Orcas dates that Microsoft has published in the past, Rudder said Microsoft

will provide more details on Longborn and other products se well so a CD with Loneborn and Oreas early-access code. at the company's Professional Developers Conference in October

in Los Angeles. At Microsoft's TechEd conference in early have, a senior executive displayed a slide conraining a road map that pro-

jected the release of Longborn and Orcas for 2005. The next version of the server operating system however was listed at 2006 or beyond. Few details were disclosed last week about Orcas. A road

anaged interfaces

provide enhanced user interface features and build on new canabilities in Longborn, such as its Trustworthy Computing security model, improved collaboration canabilities integrated data storage, new application model, and presentation and media improvements Its predecessor, Whidhey. restores some features that Visual Basic developers had

been clamoring for, such as "edit and continue," which lets them debue applications, fix errors and continue without having to stop and compile.

Additional Features The new tool will also significantly reduce the amount of code that Visual Basic developers have to write for common tasks simplify data access, build in language and compiler innovations, boost compiler performance, and

oile time and syntax errors in a manner similar to the way the spelling and grammar checker works in Word

Thomas Murphy, an analyst at Meta Group Inc., said what's most noteworthy in Whidbey are enhancements to

make Visual Basic developers more productive, give C# programmers greater ability to reuse code, and boost performance for C++ programmers. He added that in Whidhey Microsoft starts to take an important sten sway from entrylevel, bare-bones tools to enterprise-class capabilities by better integrating version con-

trol, modeling and testing canabilities That will make Microsoft's offerings more comnetitive with those from yendors such as as IRM's Rational Software division and Borland

Software Corp., he said. "In order to continue to drive developer productivity. you need to tightly integrate the development life cycle and build tools that support a collaborative development methodology" Murphy said Also last week, Microsoft expanded its newly renamed Visual Studio Industry Durtner program, adding two less-expensive tiers of membership.

Visual Studio

m New features: Simplified data access, language and compiler innovations (including support for generics and

compare introduces processes and processes of the compared of tion a mechanism for correcting compile time and syntan errors; improved tool window docking model; new controls for Windows Forms; strengthered 64-bit support; and SQL Server Yukon integration.

m Projected ship date: 2005 e New features: Support for managed interfaces, new user interface tools and Longhorn features, including the prifty Cornautino security model, improved collaboration canabilities, in

map merely showed that it will belp developers correct com-Senior VP Outlines Longhorn Server Release Plan

CARGO, BLIMA in Budder, serior vice presi nt of servers and tools at prosoft Corp., last week spo

n of the Windo

sk, I think in the past people eve been cautious about se client guys are out saying

untomers may link in teir minds, "Oh, the servor has the same name. therefore it's the same

So I think people were a little bi cared about setting expectations se we're pretty serious, once

nice if it were north works on a consistent basis. But we're going to be driven in the

It's hard for me to gredict a year cut what the balancing is going took like in any shape or form. ving the Longhorn server re-

lease? With Windows 2003, we had the theme of "do more with lens," and we want to continue push that forward. We want to make some fundamental break

One of the big initiatives is what we call DSI our Department Systems initiative. This is more ing the pletform as a whole ref evering the base We

where the data center sort of man-ages limit, because it leaves that

malit to the and users. So Point Services will be signifentire we have beener where



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Only SAS provides a high-impact, low-tiek way to achieve institigued that woredowing. You content, runsform and Ioud data from any source, across any platform, while assuring quality-Simplify the way you create and customic neyests. And deliver a shared version of the truth. To find with the process of the property of the proposed with the property of the proposed with the property of the property of the proposed with the property of th

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Gartner Says 5% of Corporate IT Jobs Could Go Offshore by 2005

Most workers whose positions are

shifted won't be redeployed, firm says

-ARTNER INC. But week predicted that between now and the end of next year, one out of every 20 corporate IT jobs that now exist in the U.S. will be moved offshore along with 10% of the positions at U.S.-based IT vendors and technology services firms

And through 2005, less than 40% of the IT workers whose jobs are shifted to offshore opgrations will be redeployed to other positions by their current employers, according to a report issued by Stamford. Conn shased Garmer The remainder will simply lose their

jobs. Gartner indicated. The consulting firm's study deves upon employment fire. ures from the Arlington, Va.based Information Technoloey Association of America which puts the current U.S. IT

workforce at a total of 10.3 million people. M. Lewis Temares, vice president of information man agement at the University of Miami in Coral Gables, Fla. said that Gartner's predictions sound reasonable given our displacement | numbers may

he at that level now" he said How to Stem the Tide

Tempres downplayed the potential effect that pro-U.S. labor legislation might have on stemming the flow of IT jobs overseas. *I'm a believer in market economics, so I don't think legislation is the solution" be said Instead Temarcs believes that finding more effective ways to do technology work domestically would make U.S. IT shops more competitive with ones offshore. Being able to guaran tee that U.S.-developed software is more secure than code

written by offshore workers would also help, he added. Maria Schafer, an analyst at Meta Group Inc., also in Stam ford, agreed with Gartner's estimotoc that the number of iobs sent overseas by U.S. IT vendors may approach 10% by the and of part year But Schafer said she thinks Gart ner's prediction that \$5. of corporate IT jobs will be moved offshore by that point

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By June 2004, how will your use of offshore IT workers change?

countries "takes a lot of different pieces coming together. not least of which is an organi-

importantly transition time Schafer said. "It takes a lot of effort to manage remotely what you've up to now managed locally."

Gartner analyst Fran Karamoughs said researchers at the company are still trying to calculate the total number of jobs that will be moved offshore to alaons such as India and Singange by the end of 2004. The challenge "is that there's a level of new-job creation" that has to be factored into the calculations, she said.

The movement of IT jobs offshore could be affected by "public and legislative pres sure," said Craig Symons, an analyst at Giga Information Group Inc. in Cambridge Mass. Symons added that he expects the financial services industry to lead the offshore push amone U.S. companies. Banks and brokerages have bistorically led the curve when it comes to adopting new technologies and IT methodologies, he noted.

EMC Adds High-End Array. **New Connectivity Options**

DMX3000 model doubles capacity in Symmetrix line

EMC Corp. last week upgraded its Symmetrix DMX disk array line by appropries plans to add a new high-end model plus native support for IBM's Ficon mainframe connectivity technology and the low-cost Internet SCSI (iSCSI) storage interconnect. FMC also introduced a new

version of its Symmetrix Remote Data Facility (SRDF) software that supports agenchronous replication of data across distances of thousands of miles for disaster recovery purposes, plus a local replication product called EMC Snap that can encate point-in-time conies of storage volumes The Hopkinton, Mass.

based company said the DMX3000 high-end array will support up to 84TB of raw storage capacity and 73.5TB of usable space. The new model offers twice the capacity of FMC's existing DMX2000 ar-

row and is due to become maidable next month The SRDE/Asynchronous

(SRDF/A) replication software is available immediately for use with all of the Symmetrix DMX arrays, as is EMC Snap

FMC'S NEW DISK ARRAYS

EMC said the built-in Ficon and iSCSI support is scheduled to be added in Septem ber, when the DMX3000 ships. Mark Popolano, CIO at American International Group Inc (AIC) in New York said he plans to use SRDE/A to replicate data between redun-

dant storage-area networks (SAN) that he's building at data centers in New Jersey and Texas - a distance of about 1 500 miles. AIG expects to install about 280TB of storand consciences EMCV

DMX1000 and DMX2000 arrms as part of the multimile lion-dollar SAN project.

Popolano said he's particularly pleased about EMC's planned addition of Ficon support, because AIG will use the Symmetrix arrays to back up mainframes that have a combined performance level of "several thousand MIPS," as well as Windows NT and Unix servers

Using Less Randwidth

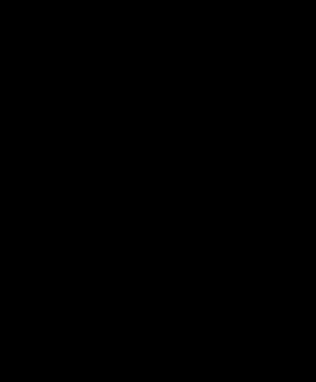
The SRDF/A software can reduce bandwidth consumption by up to 30% by mirroring delta sets of data every 15 to 30 seconds instead of constrants updating information as it's written to disk drives, said Chuck Hollis, a vice president

at EMC. The company is also adding native Gigabit Ethernet connectivity to the SRDE technology for Symmetria DMX, which lets users replicate data remotely without installing any channel conver-

sion devices. Chuck Standerfer, an analyst at Evaluator Group Inc. in Greenwood Village, Colo, said that many EMC users have been waiting for Ficon sup port, which boosts peak throughput between the disk arrays and mainframes from 17MB/sec with IBM's older Fscon technology to 200MB/sec EMC said its new iSCSI ports will let systems admir

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matry operating software and a lower-cost configuration of the entry-level DMX800 array. The new offering costs 30% less than the initial DMX800 model that was introduced in Echrosev, but it supports only about half the raw minimum storage capacity, EMC said, 9



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SUN FIRE" V60X SERVER:

> INTEL XEON 2.8 GHZ PROCESSOR

> PLINS SOLARIS" & OS FOR X86 OR RED HAT' ENTERPRISE LINUX' ES



SUN FIRE V210 SERVER: > RACK-OPTIMIZED. ULTRASPARCYSOLARIS OS

> INTEGRATED WITH AWARD-WINNING SUN" ONE MIDDLEWARE



SUN STOREDGE" 3310 SCSI ARRAY:

> HIGH-DENSITY, MODULAR STORAGE > HIGH AVAILABILITY CONFIGURATIONS



SUN FIRE B100 BLADE SERVER: > ULTRASPARC OR X86 PROCESSOR

> RUNS SOLARIS 8, 9, OR RED HAT ENTERPRISE LINUX ES"

THE LOW COST MOVE IS ON



for its Axim handheld PCs but then quickly pulled the code from its Web site after backers used the patch to described free copi of Microsoft Corp.'s Pecket PC 2005 operating system. Doll did the patch, which was designed to fix a flow in firmware that the any developed to work with icrosoft operating pystem.

Microsoft Savs NT Patch Needs Fix . . .

nell acknowledged that a n cause problems on servers uning Windows HT 4.0 and its uting and Remote Access Ser-te software. The reuting code when IT managers reboot ms after installing the pair oft said. An update of the ich is in the works, although a ot fix" that been't been fully

. And Signs Deal To Settle Lawsuit

in another matter, Microsoft sa it has agreed to settle a patentringement invest fiel by Sen so-based investion Corp. The al cells for Microsoft to pay \$26 million to Scores Immersion's interactive touch technology and to buy an ownership stales of just

BMC Cuts Jobs Following Q1 Loss

IMC Selfoure Inc. reported a \$6.1 n not loss for its first quart and said it's laying off about 900 eas, or 13% of its work force. Houston-based BMC said it had revenue of \$309.9 million in the quarter, which ended June 30. That was up 2% year-over-year, but Bob Bosecharep, BMC's president and CEO, said he was

Unisys Expands Partitioning With Upgraded Mainframe

May have greatest appeal among existing users

---THISYS CORP has re-

leased a new mainframe its most powerful to date aimed at IT preapizations that are consolidating servers and movine m Web services. The Classitath Blood Liber

ISS can operate at 10 SOO MIPS, a processing speed that's more than 400% above that of Unique' previous tonline model. It also features built-in Net and Iava support. the Blue Bell Pa hosed company said.

Continued from page 1 MCI

on Friday to assess the notential governmentwide impact of MCI's suspension, which took effect that day.

Vance Hitch CIO at the loss tice Department, said he is also concerned about the situation. "We sent several people from our telecommuni group to meet with the GSA to understand exactly what this means," be said, "We'll be asworking on a strategy over the next several weeks.

By contrast, Lt. Gen. Steven W. Boutelle, the U.S. Army's CIO. said be doesn't expect *any interruption in our ability to provide clobal and nervasive information." The Army has a number of potential network service providers other than MCI, be added.

But even GSA officials have acknowledged that the effects could be widely felt. In a May 30 memo, GSA General Counsel Raymond McKenna said any shift away from MCI would disrupt teleco cations services to many acco-

\$1.1 million to \$22.4 million. depending on the configurarlon, is intended to support the Univer Business Blueprintine errateey which was an-

Like Hewlett-Packard Co.'s adaptive enterprise, IBM's nndemand initiative and Sun Microsystems Inc.'s NI, the strategy is designed in improve a company's ability to adapt its existing technology to changine husiness models

John Phelos, an analyst at Gartner Inc., said the server's added canability will have its strongest topical among existing ClearPath users, "This is a good growth ontion that they have," be said.

cies, including military, law enforcement and borneland security organizations. MCI has 30 days in chal-

lengt the GSA's decision before it's formally barred from the contracts process. But the company said it accents the ruling and will seek reinstate. ment after it finishes installing new control systems and strengthening its ethics office. A spokeswoman for MCI said it plans to continue making contract bids to agencies in anticipation of being rein-

stated. The carrier "fully intends to be able to put into place the necessary accounting controls," she said adding that MCI hopes to meet the GSA's requirements "sometime in the very pear future." The ruling by the GSA, which awards and manage private-sector contracts for

the envernment won't affect MCI has a big **7** magnifying glass on it right now.

RICK SLOAM, MANAGER DOLLAR TREE STORES INC

The system, which will cost Bob Kenward, vice presi-United Fire & Cassalty Co. in Cedar Rapids, Iowa, has been testing the new mainframe and was considering matring it NEW PRODUCT

Unisys ClearPath Plus I ihra 185 = Up to 32 CMOS proce and 24 lettel Xaco area

Eight partitions, 649B of memory

and federal agencies.

Corp. filed a 27-page objection

to MCI's Chapter II reorgani-

zation plan in U.S. Bankruptcy

Court in New York, ATAT said

were "knowingly and reckless-

ly' routed through Canada

That resulted in *millions

upon millions" of dollars in

offloaded upon AT&T, the

company claimed

MCI operating expenses being

In addition, a spokesman for

San Antonio-based SBC Com-

munications Inc said MCI has

avoided access fees owed to

SBC at a rate of about \$1 mil-

lion per week, dating back to

its bankruptcy filing in May

MCI users were "disguised

and masked" as local SBC

glass on it right oow," said

Rick Sloan, manager of tele-

Chesapeake, Va. Dollar Tree-

has been an MCI customer for

Il years and buys millions of

communications at retailer

Dollar Tree Stores Inc. in

calls, the spokesman claimed.

*MCI has a big magnifying

2002. Lone-distance calls from

and back to AT&T's pateous

calls made by MCI customers

OPERATING ENVIRONMENTS:

in production this past weekend The mainframe's chief appeal is that it can support un in eight partitions, he said. Kenward's current system fails over to the development machine balting work. But the partitions "eige me the shiliry tn keep programmers working when the company fails over in the programmen' machine," he said.

www.commissionworld.com

Kenward has on immediate plans to utilize the .Net or lava support but said be wants the latest and best mainframe from Unisys because he plans to use it for at least six years.

Unisys said the new mainframe supports its Blueprintine strategy by allowing mainframe and packaged applications to min on one machine The system can run Unisys MCP mainframe operating system along with other operating systems, including Linux and Windows, running on the various partitions.

existing deals between MCI dollars worth of network services from the company annu-The call-routing investi ally, Sloan said. He added that tion came to light when AT&T Dollar Tree is now evaluating

MCI and 16 other vendors for a new multivear contract that will be awarded next month. Sloon said he thinks MCI's rivals are worried that it will emerge from bankruptcy in a relatively strong competitive position, "In our contract talks, any vendor's ethics are one thing among many we consider," he said. But for Dollar Tree, reliability of service "has oever been an issue" with MCI. Sloan added

In a statement, MCI CEO Michael Capellas said that MCI officials have met with staffers from the U.S. attorney's office for the southern district of New York and "committed to them our full cooperation in their efforts. He also said that MCI has hired an outside law firm to analyze the charg

"As I have said all alone, we will do the right thing," Capellas said. "We have a pero-tolerance policy, and if any wrongdoing is discovered, you can be certain that we will take acpropriate action swiftly.")

Private Companies Feel Effects of Sarbanes-Oxlev

Mets Group Inc in

Stamford, Conn.

referring to Sar-

porate records

manager at LR.

banes-Oxley com

Fred Pauls, cor-

Financial reporting law could force IT changes even at nonpublic businesses

BY THOMAS HOFFMAN When Congress passed the Sarhanes-Oxley Act in July 2002, the mandates to put more stringent controls on corporate accounting practices were primarily aimed at public companies. But executives, consultants and lawyers are starting to realize that there are both direct and indirect implications for privately

held businesses as well For instance, public and pri vate companies alike must adhere to the so-called whistleblower provision of the financial reporting law, said John Hagerty, an analyst at AMR Research Inc. in Boston

That section specifies that employees must be given the means to anonymously notify federal regulators or corporate audit committees of any potential wrongdoing within

In addition, privately held companies would have to take many of the other steps mandured by Sarbanes-Oxley if they decided to go public or serred to be acquired by a public company, according to Hagerty and other analysts.

Other Considerations The whistle-blower provision

probably won't pose major IT implications for most companies, beyond the need to provide confidential methods of But the stock-offering and

mercer considerations are another story. Just like their peers at public companies. IT managers who work for privately held businesses could be forced to make substantial changes to their system infra-

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structures and data-reporting canabilities. "If you're thinking of going was fall of 2001, I felt like we were doing what we needed to realm of possibility for you. do. We had seen a small step

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this is ones as back competition nual revenue of more than \$3 that you'd better plan for," said billion, last year began indexing its purchase-order system Robert Handler an analyst at so the application meets Sarbanes SPECIAL COVERA Oxley's record-

keeping requirements The com ne could new White artis eld.ink a3250 pagy is using an automated records management sys-Simplet Co. in Boise. Idaho. tem from Colorado Sprinsssaid the privately held agribusibased Ontika Inc., which it has

used for other purposes since the carly 1990s

Compliance Tips

"We do comply in most cases with Sarbanes-Oxley, due to previous (internal financial controll policies and this software system is a key part of that," Pauls said. In the future, he added, I.R.

Simplet will likely take advantage of a link between Optika's Acorde Records Management software and LD. Edwards & Co's financial applications to belp ensure that its procedures comply with other parts of the law locelyn Arel, a portner at

Boston-based Testa, Hurwitz & Thibeault LLP said some public companies that she's representing in potential acenisition deals are beginning to push privately held busipesses to document their internal accounting controls and processes in order to show compliance with the Serbanes Oxley Act.

"We've starting to see that in the due dilissence process that buyers are soins through." said Arel who is co-chairman of the law firm's corporate finance and securities group.

Avaya CEO Sounds Hopeful Note, **But Looks for Ways to Drive Sales** but earnings were up, and we

Networking vendor reports profit after seven straight losses

ness has already taken steps to

address the provisions of Sar-

Awaya Inc. on July 24 ended a string of seven straight quarterly lesses by reporting on \$8 mil-

lion profit on revenue of \$1.07 billion for its third quarter, which ended June 30 Several days before the resuits were announced, Denald reen. Avava's chairman and

CEO, spoke with Computerworld about the status of the Basking Ridge, N.I.-based networking equipment vendor, which was spun off from Lucent Technologies Inc. in October 2000 Excernts follow:

On a peak of 1 to 10, how would you rate Aveya's performance during its current flocal year and in each of the past two years? At the end of our first year, which were generating cash, and we made a couple of acquisitions. But then the revenue fell away from us much more dramatically than anticipated. So I would have given us an 8 out of 10 one year

out. By the fall of 2002. I would have dropped that to a 4 or 5. And since that time. I would take us back towards

What level is your research and devolop nding at new? R&D is right shout 9% of pregnat.

which is about where it should be. We can live well with 9% of total revenue, keeping in mind that if you looked at product revenue. (which is) less than half of total revenue. we're in the midteens. That's about a \$400-million-a-year RAD flow, and that's a presty

Averya? Your workforce is at near-

robust program.

mest 20% from a year age. We were at 34,000 full-time cmplorees when we spun of from Lucent in late 2000 and ore at a little under 17,000 fulltime employees right now, and part-timers and contractors

would take it up to that 15,000-plus number. So, we have taken a lot out of the business At the same time

me've been relatively successful at keeping ople focused. We're kind of at where we should be, but there will be some drifting down of that number, and

frankly, it will oscillate. It could come down more, but it could expand fairly rapidly if we got 10% more revenue.

What about the economy and when you might see an optick in mus? The conversation is better out there. More of our customers are talking about the loced for sol investment seram, and the CEOs are talking about looking at an in

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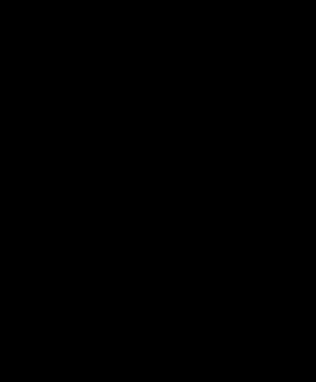
tions and core voice processors that are major componears of other systems, and we will supply them on an OFM basis to people that supply the servers and the middleware the IBMs and HPs and, hope-

fully, Microsoft You obviously like your job, but what problems keep you up at night? I do like my work. But struggling with the revenue line clearly has been the most

stressful part of this work. When you have a little bit of a problem, as we have had in the last couple of years, fighting against that is a little disappointing some days. But we're cetting through that, and

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www.computerworld.com

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which is about where it should he. We can live well with 9% of total revenue, keeping in mind that if you looked at product reveoue. [which is] less than half of total reveoue. we're in the midteens. That's about a \$400-million-a-year R&D flow and that's a pretty robust program.

Have you stopped cutting jobs at Avava? Your workforce is at mear-

ment 20% from a year and, We were at 34,000 full-time employees when we spun off from Lucent in late 2000 and are at a little under 17,000 fulltime employees right oow, and part-timers and contractors

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tions and core voice procesnents of other systems, and we will supply them on an OEM basis to people that supply the servers and the middleware the IBMs and HPs and, hopefully. Microsoft.

You obviously like your job, but what problems keep you up at night? I do like my work: But struggling with the revenue

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What do you most need at Avan new? Getting ourselves visible in the marketolace.

SHARP

Digital Document Security and IT: Everything you need to know.

O: What are the most significant annus conver nent correniers A: Various copier print co-con...

and permanently store multiple document files providing administrato access to the documents. At a totaling hundreds of pages. Others multiplier a next when when the norther of busy or jammed, making 'denial of services attacks nossible

O: How does Sharp protect the

A : The Sharp Ethernet card allows acress and disable unnecessary protocols. With this network card, the Sharp digital copier is essentially

O: How can you be sure that security products actually perform as claimed?

A: The Common Criteria
program—administered by the National Institute of Standards and Technology-evaluates security solutions. Products that are validated under the mooram meet security levels consistent with ISO 15409

Q: How can Sharp improve If

Sharp offen print privacy A : Sharp offers para proces; solutions designed to restrict consents annex flav memory are enmertianely cleaved to elemenate unauthorized access.

sharpusa.com

be sharp

EZER Sharp Electronics Corporator

IBM Readies Portal Software Upgrade

New version adds data-sharing document management tools

BY MARC L. SONOIN IBM last week unveiled planned en-

hancements to its WebSnbere Portal software that are designed to let IT managers and end users set up datasharing canabilities between applications without resorting to the use of

Tim Thatcher, program director of WebSphere Portal marketing at IBM said Version 5 is aimed at beloing companies get a return on their portal investments more quickly. Key new features include so-called cooperative portlets functionality for distributing data from one application to another

and separate integration tools for linking specific information stored in different databases The upgrade, which is due to ship Aug. 21, also includes a document manseement function that lets end users centrally store financial reports, product specification sheets and other business documents so they can be shared

to track different versions of a docu-

ment and control access to informs. tion 1934 said

The company is also adding a version of the software called WebSpbere Portal Express for small and midsize businesses or small departments within large companies. The Express release will simplify the process of adding new users or changing the portal's look and feel, IBM said, adding that it will also be packaged with instant messaging.

chat and group calendaring tools. Plastic Surgery Center of Hampton

IBM's WebSphere Portal Version 5

Roads, a medical facility in Newpo News. Va., has been beta-testing Express since famuary along with add-on messaging and single sign-on tools developed by a think-party vendor Datricia Stibbe practice administra-

tor at the center, said the portal application has already paid for itself through improved staff productivity and a reduction in paper-based manual processes. The medical facility has also been able to centralize "the tremendous amount of information

running in the office" she said Stibbs said that within the next 90 days, the company plans to go live with the document management feature, which will let employees securely share confidential data via WebSobere Portal. It also plans to tie the portal into a new back-end billing system that will be based on a set of packaged apnlications that have yet to be chosen IBM has improved the WebSphere

Portal installation process to make it essier to roll out the software in a test environment before doing a full-blown implementation, said Laura Ramos, an anabest at Formester Research Inc. in Cambridge, Mass. The process is also more modular, allowing users to skip stens or swan out some of the underlying components more easily, she noted. There is no clear leader in the portal market at this point, Ramos said, but she added that IBM offers the widest range of native capabilities for nunporting transactions, applications and content aggregation.

Comdex Fall 2003 to Target IT Professionals

You won't find booths pitching massace chairs, refrigerator magnets or shoe insoles this November on the exhibition floor at Comdex Fall 2003 in Las Vegas

with and modified by co-workers.

Eric Faurot, vice president and general manager of Comdex, said late last month that the computer trade show's focus will be on addressing the business-to-business needs of IT profes-

"It's important for us to eliminate the notion of consumers coming to Comdex." Faurot said. "Our goal is to be the industry event for IT. Questions swirled about Comdex's

future wheo Key3Media Group Inc., the company that produced Comdex and other high-profile technology trade shows, filed for Chapter II bani ruptcy protection in February (Quick-Link 36120). But the company an-

from Chapter II and that it would change its name to Medial ive International Inc. and relocate its headquarters to San Francisco (QuickLink

293721 With the event's new focus, gon will be the digital lifestyles track. Instead. Comdex will be a "best-ofbreed" conference focused on seven core themes: wireless and mobility. Web services, digital enterprise software, on-demand computing, open source, security, and Windows and

One way that Comdex organizers will try to attract a higher-quality audi ence is by charging an entrance fee. Those who preregister will pay \$50. while those who register on site will pay \$100. Faurot noted

Met Enmot said

So far. 150 vendors have committed, and organizers are in talks with another 400 to 500, according to Faurot He said there were about 900 ex-

hibitors last west Microsoft Corp. signed up about three months ago, and its chairman and chief software sychitect Bill Gates has once again agreed to deliver the

opening keynote, Faurot said. Comdex will be positioned similarly to June's CeBIT America in New York That show the first CeltiT event to be held in the U.S., also had a business-tobusiness focus [QuickLink 39174]. But Faurot said there's "definitely room. as the market bounces back, for more than one event." He noted that CeBIT America now fills the vacancy left by PC Expo in New York, which tended to have a regional draw.

"They've got a great brand internationally, but it's going to take them a while to build aware ess in the New York market," he said 9



How secure is your digital information?

Protect your information with the Data Security Kir from Sharp. Financial facts, personnel records, customer lists: networked copiers/printers process sensitive information every day. Unfortunately, their hard drives can also be accessed via the network contributing to 360 billion worth of information theft every year? To protect this week link in your

corporate security, we've created our Data Security Kt. it's the first copier and printer protection to be validated by Common Criteria, a government-sponsored program, and it's available only with our 'Digital IMAGER' series of copiers/printers Sharp's Data Security Kt. Enhanced information crotection at Nour fingerpos harpusa.com/Security



SHARP. be sharp

MARYFRAN IOHNSON

Skirmishing With Spam

HEN I cranked up my spam filter settings to "aggressive" not long ago, I saw a gratifying drop in the number of junk e-mails sneaking service. But I quick off the company of the company

"You blocked me. Mon?" said the daughter. Expleire deleted, said the husband. So I wasn't surprised last week to see false positives referred to as "be biggest challenge in our cover story on "Soun Battle Plans" [Quick link 39822]. False positives can lead to lost business, angry customers and

39842). False positives can lead to lost business, angry customers and mutual frustrations galore. Spam just keeps getting better at getting worse, doesn't it? With an estimated 50% of all incoming business e-mail now likely to be spam, legitimate messages are swimming upstreem like rechustered salmon in the woon river.

existances satisfies in the wong revercental date to span blocking, you wonder what you're missing, 'says 600 Buchwald, security masager at Ohio-based Moern Inc. (QuickLink 9984II. Moen, which sells residential and commercial plumbing supplies, grew weary of the system-tindering grew weary of the system-tindering life to the system of the system of the property of the system of the system lists and rules updated to block spum. The company numed the whole most over to a service provider—and now only one message in 5,000 is

blocked as a false positive.
Legitimate e-mail getting sidellined because of spam is a particular pain for certain industries, such as lealth care and financial services. One medical center we wrote about takes such a hard-line stance on soun that

even personal e-mails are considered junk. ("You blocked me. Mom?" "No, honey, my IT department did.") Of course, financial necessity plays a big role in all industries, since piling on e-mail servers and storage to cope with spam is an unwelcome strain on budgets these days. So are there amy hapow

endings to spam stories?

Perhaps. Our article on
spam drew the attention of one CIO
who believes he's found a way to defeat it. Larry Fresinski of Cornell's
S.C. Johnson Graduate School of
Management e-mailed me about his
discovery, and thankfully his mes-

let. He's testing an open-source spam filter called SpamBayes that seems to work well with Microsoft's Outlook 2003 (see story, page 5). "The turned the Outlook filtering off and who as his name arm Spage.

100z. 2001 See Story, page 3.

"Pve turned the Outlook filtering off and rely on this now," says Fresinsit, who is part of Microsoft's betatesting group for Outlook 2003. The
testing group for Outlook 2003. The
code for the SpamBayes Outlook
plug-in (http://stos/ship.python.net/
crew/mhammound/ApamBayes/) can
be installed quickly, and it's regularly
updated, he says. It also works and
Outlook 2000 and Outlook XP (but
not with Outlook XP (but
not with Outlook Express).

not with Outlook Express). "SnamBayes is a little-known effort that's making tremendous progress. It's a very effective tool - 99% of my enam is being contured " Freeinski says. "The beauty of it is that it continually learns what is sparn to you and not to some external database." That speaks to one of the big issues in the snam battles - and the reason it can't be blocked or attacked as comprehensively as viruses can, "Spam is not generic * Fresinski notes *Plenty of it is similar, but a large amount of it is specific to each person and what they consider to be spam."

they consider to be spam."

As the spam wars keep escalating, it's nice to bear from one of the victors. If your defenses are holding up, let us know so we can share your



PIMM FOX WYSIWYG

For Color WHAT YOU SEE isn't what you get. That's the prob-

what you get.
That's the problem with color.
Although inexpensive desktop printers, monitors, scamers and digital
cameras have made color widespread.

inside businesses today, they haven't ensured color fidelity or consistency. Producing consistent color from start to finish has required guesswork by designers, art directors and commercial printers.

The color management system developed by the International Color Consortium (ICC) enables color coordination from monitor to desktop printer to press. This should cut down on the number of pricey proofs and reduce the likelihood that you'll get

poorly matched colors and disparate results that add time, money and stress to a process that ought to be about greater customer value. For example, color for a logo can appear different on any giv-

For example, color for a logo can appear different on any given monitor, different when reproduced by a desktop color printer and different

again when rolling nff a color press. Color models that use namerical values to describe color, such as RGB (red. green and blue — for monitors) and CMYK (cyan, magenta, yelliw and black — for print), can help designers designate what they want, but they don't offer consistency over the range of 1/10 devices, and anollication.

The profiles set by the ICC (www. coloroxy) make it possible to accurately interpolate color from one device to another. They also confirm the notion that industry standards bodies can produce more than abstracts and policy pronouncements. Use of the IT-based industry standard offers customers lower prices, quicker execution times and consistent output across different

media.

Here's how it works.

A spectrophotometer, an instrument

for measuring color samples that you can get courtesy of your local printer, uses color outputs from your different devices to create ICC profiles that are calibrated to that printer's press. Once the devices, drivers, operating systems and applications are profiled, they're translated into something called a common color space that's embedded in the ICC profile. (ICC profiles are supported by graphics applications such as Adobe's Photoshop, Illustrator and InDesign.) I/O devices can read this translation, making it possible to match results against offset grayoure ink-let and laser printers as well as CRT and LCD displays and video prosections. In addition ICC orofiles can note the device link and named colors

such as those found in Pantone's and TrueMatch's color libraries Dave Wilson, general manager of Ornard Calif-based Venture Printing Co. says clients who install ICC profiles on their own computers will reduce surprises at the press and realize savings by eliminating multiple rounds

of proofing And that way, what you see is what you get. 9

ARI KAPI AN Sharing Is

Nice, but It's

Also a Crime

OURTS in the U.S. are

reportedly issuing

per day at the request of the

anonymous users of peer-to-peer soft-

ware. The question now is, When will

grand juries begin handing down in-

dietments? That's right, indictments.

as in. Go to jail, go directly to jail, do

not pass go, do not collect 200 MP3s

In a recent telephone conversation Rep. Anthony D. Weiner (D-N.Y.), a

music industry in its fight against

convient infringement. Imagine the public relations nightmans that a criminal prosecution of an employee would cause, especially if he used the company's comput er to commit the crime Years ago, there was an interesting loophole in the Copyright Act - people

cerned about facing civil

who intentionally distrib nted copyrighted material over the Internet didn't face criminal sanctions if they didn't derive sew peofits from their actions. In 1997. however, the NET (No Electronic Theft) Act amended the law so that financial eain was redefined to include the mere expectation of receipt of any-

thing of value, which specifically included other convrighted material. Now it's a federal crime to share (not just sell) copyrighted files.

On July 16, the Author, Consumer. and Computer Owner Protection and Security (ACCOPS) Act of 2003 was introduced to further amend the Copyright Act. Under ACCOPS, a single file



----------------\$2,500 threshold of felonious copyright infringe ment Penalties could include up to five years in iail and as much as \$250,000 in fines Weiner a co-sponsor of the bill warned that "there is going to be an intools of the less to ston this problem."

upload to a file-sharing site

Corporations should be especially concerned, given the study released in mid-July by Ottawa-based AssetMetrix Inc. (download a PDF at www.qsartmetrix.com/ pdf/p2prisk.pdf or see story at Quick Link 40012), which showed that of 560 companies polled, three quarters had peer-to-peer software loaded onto their systems. "P2P file sharing has been elevated from an IT-related issue to an executive issue. CEOs and CTOs

are fearful of the legal liabilities and having their corporate names dragged down by use of these services by their employees," says AssetMetrix President Proi Bodnoff

In order to avoid the spotlight, IT managers should do the following: Implement programs to detect and block P2P access (though they aren't

■ Perform random keyword searches of files that are stored throughout the network for illicit materials. Scan networks to determine how many computers use P2P programs. how many files have been transferred and how much space those files have

■ Limit the amount of hard drive source or the number of CD-RW drives resilable to employees Launch an aggressive educational program to alert employees to the

company policy on file sharing By taking these proactive steps. companies may avoid association with the first criminal prosecution for file sharing. After all, the Department of Justice doesn't accept "get out of jail free" rends B

WANT OUR OPINION?

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READERS' LETTERS

DHS Didn't Have to Choose Microsoft A compare to the heading of Little Choice but to Sign Microsoft Dead Descrite Security Flaws (Dateld ink 39989). What about Mac QS X on the desktop and the National Security Agency's securi-

ty-enhanced Linux servers? Either a lazy (if hack didn') went to put forth the effort to implement any thing other than another layer of Microsoft "insecurewers," or this wer a care of good old-bash Washington deal-making. What bothers me is the implication by the DHS IT people that changing to anything but Microsoft software would cause the end of the world as we know it. They cught to talk to Wall Street because Linux nées everywhere that security and sta bility are concerns.

THE DIES DEAL with Microsoft is so Ingittening it's like a disaster movie. According to Roger Cres-President's Critical Infrastructure

hardd A. Grennery

Marion, Ark.

Protection Board, "They had a choice, but if would have been costly and time-consuming." This statement is ignorant and deveneeds the world of alternatives. available. I find it especially significant that Bill Gates has the ears of necosie in high places. Consultant, IET Production

Services, Las Vegas Stolen Fingerprints No Security Threat

T IS COMOUS that Malcolm Mac-Teggert, who was quoted regard ing the danger that fingerprints and other biogrants could be stolen by hackers, is president and CEO of a company that makes smert cards with encryption keys ["The Next Chapter IT Security," QuickLink 39535), Stolen Ingerprints are worthless for accessing a system

that uses fingerprint scanners that first detect whether a finger is "alive" before even attempting a scan. These cheep, rehable scan cers, such as the Ethenticator my company uses, first detect the nce of bioelectrical activity neath the sion caused by a per

determine if real skin is being scanned. No James Bond here! Steel all the Engerprints you word. I will even send you mine They won't do you any open New ctual my smort cont with all of my digital certificates on it - that's a

Founder and CTO, ValidX Technologies Corn., Houston Mobile Insights

EXJOYED RUSSELL KAY'S IC cent article on Centres note books ("Laptops for the Long Haul," QuickLink 39397), However, the "standerd" pricing quoted in the article is somewhat misleading.

We recently performed an evaluation by our composition and mackly narrowed our choices to two computers that were reviewed it the article, the Dell and the IBM ThinkPad, in a competitive bid situation the prior difference between these two contenders is negligible I would encourage your readers to appressively regolists with ven dors. Even if the order is in the bendeads and not thousands of

units. The pricing does change And white on the topic of mobile devices, let me say that the only way that a Wi-Fi service will make money is if it's referred for lone l'Businesses See Wi-Fi au Poten ted Lum." Duckt, rok 397941, It's ndiculous to accume that L as a business traveler, am going to sign up for monthly class with various providers, depending on whore-the travels take me. However, I will go out of my way to book lodging or an travel with companies that offer Wi-Fi as an amenty

Paul Loard Director of IT, UST Inc. Greenwich, Coms.

COMPUTERWORLD welcom comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to James Eckle, letters editor, Computerworld PO Box 9171, 500 Old Connecticut Path, Fransingham, Mass. 01701 Fax: (506) 679-4843. E-mail: letters/Roomout

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member of the House Judiciary Committee's Subcommittee on Courts, the Internet and Intellectual Property, commented that "the marketplace is ripe for criminal prosecution of digital file sharing because the problem is perting worse and having a more dramatic impact on the economy." Until recently, companies wanted their employees to avoid peer-to-peer activities at work to eliminate distractions, avoid network slowdowns, mini-

mire security risks and slow the spread

of viruses. Now they must also be con-

> 9:32 am. Martha Watson counts over 1,200 name brands in order to justify the word "more" to the legal department. We said more technology products from more tob wantercritics that subout April 12 years top manuscrares used surpose each as now LT meets their needs. And it's another reason why nobody gives you more than CDN. 890 789 4CDW

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TECHNOLO

QAA Putting the Pieces Together leanette Horan, IBM's chief software strategist, has ber hands full coordinating the offerings of the vendor's five different software groups. Page 26

The Search for Synergy Through Consolidation Paul A. Strassmann says that unless your company understands the problems that can arise from consoli-

dating IT systems and is prepared to address them. the much-vaunted synergies from consolidation won't materialize Page 31



Simulations Revitalize E-learning Advances in simulation frameworks and a new emphasis on blended learning are

making e-learning more effective, cheaper and easier to deploy, leading many companies to apply it to on-the-job train-

Configuration tools without solid howto policy guides will hinder server management, By Robert L. Scheier

or groups groups choosing software to help him configure his servers was easy. The hard part was using that tool with different types of systems

Geddis, a business analyst at cable operator Time Warner Cable Inc. in Raleigh, N.C., ran into this challenge last December after buying Security Update Manager from Woodland Park, Colo.-based Configuresoft Inc. to distribute security natches to 700 desktop On the workstation side, Geddis is

developing a set of policies completely different from those for servers for determining whether a security patch is important enough to install, how to test the patch and how to track the process so the patch can be removed if it causes problems later.

The tool has forced us to go back to document a process to make those de-cisions — which is a good thing," says Geddis. He's repeating the policycreation process with Configuresoft's Enterprise Configuration Manager

configurations and the changes needed on about 20 Windows servers as well. He can't simply reuse the server policies for his workstations; there are far more differences amone servers then there are amone workstations. and the servers run more critical applications than the workstations and have different needs

Sometimes server configuration reguires compromise. Geddis says. For example, if he had a machine used for both database and Web serving, he'd have to decide between his database administrator's accuments to tighten security on the server and his Web administrator's arguments for somewhat looser

security to make access easier Using ECM to understand the differences in configurations among his servers forced Geddis to improve his change management policies so he can undo natches or other configuration. changes that might crash a server. That, in turn, be says, "highlighted the need for a better test environment. As we fill in one hole, we discover new

holes" in the company's server configuration management processes. That's why systems administrators looking to automate server configuration management can expect to spend less time choosing a tool than they do deciding on the "ideal" configuration for different types of servers and settis up procedures to test and then track the changes made to the servers over time.

Even as vendors roll out "utility com puting" strategies that require server configuration tools to deliver comput ing on demand, they acknowledge that the tools are less important than the policies their customers follow. "If they just run around with next tools that can allow them to apply patches on the fly or change configurations on the fly, without testing, without going throu a defined process, they're going to end up with very unstable environments very quickly," says Alian Andersen, vice president of Unicenter IT Resource Management at Computer Associates enational Inc. in Islandia, N.Y.

Continued on page 22

CONFIG POLICY (ECM), of which Security Update Manager is one component, to track the

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Continued from page 19

Andrew Tester, lead technical architect at Park Nicolet Health Services in Eden Prairie, Minn., is pleased with the fixed of IBM and Twols management tools be has in-house. But his staff has been too basy to properly set up the automated features of those tools. "We end up doing a loo of this stuff massally, and not us efficiently" as possible, he says. He expects the situation to improve this year and next as the health care provided redoxes more of its staff

to automating server management. Configuration management tools generally collect detailed information about servers, ranging from their opersting systems and applications down to detailed information such as ver-

to occube historianous Registry that could be in the historian Registry that such as the installation of a security parch, and in some cases can distribute software, make changes to the configuration of the servers, dynamically reallocate server capacity, update security settings or perform other actions based on predecentained policies. It's a market that Giga Information Group line estimates will increase from \$1.25

billion last year to \$1.75 billion this year Just having an up-to-date inventory of what's running on his 110 Windows servers has made it easier for Ismael Pimienta, a network specialist at the University of Miami, to distribute and install nate-hex.

"One of the biggest problems when you have a lot of servers is keeping task of a few for the says. Using task of a few has what. He says. Using Configuration's ECM, he doesn't have to figure out which ones have instruct flactmation Server or 9QL Server 2000. "I can group them by either operating system or application and out out the patches appropriately," he says. "We've in mach better control of our servers, from the standpoint of security and access and services."

Extended Canabilities

Some tools focus on operating systems. Others spotlight applications. And still others go beyond monitoring and managing servers and desktops with at least some capabilities for monitoring and managing other components, such as storage and networks. For example, Veritas Software Corp. in Mountain View. Callé, is adding

server management to its established lineup of storage management tools. Using OpForce 30, an IT manager could tune the virtual disk environment of a server to optimize it for a database application and then clone that configuration to other servers on the network, saw Matry Ward, director.

of product marketing at Veritas.

The information gathered by such tools is valuable for other purposes besides configuration management. Geddis uses the data collected by ECM for everything from monitoring whether has enough licenses for all of the

copies of Microsoft Office his company uses to storing the data needed to create emergency recovery disks for any Windows workstation in the company.

Within the next 18 months, Microsoft Corp, plans to combine its Systems Management Server and Microorder Server and Micro-Operations Management of the Corporation and Management of the Microsoftware inventory and system operations data provided by the respective colors are inventory and system operations data provided by the respective colors are Microsoft's enterprise manager in Microsoft's enterprise manager in Microsoft's enterprise management division.

Microsof also recently amounced its Dynamic Systems Initiative, a new software architecture designed to simplify and autonisms the deployment of Upinamic Systems and autonisms the deployment of Upinamic Systems or less, computing and network resources as needed. The first implementation of the architecture will be Microsoft's Autoniaed Deployment Services, so the substantial of the Systems of the Systems so the Systems of the Systems of Systems which was the Systems of Systems which was a substantial of Systems which was a substantial or substantial which was substantial whic

Pimienta uses the domain policies within Microsoft's Active Directory to control his servers' security settings. He would like to see an easier-to-use interface than that included with Active Directory's own management tools. Realizing they need advice in addi-

Realizing they need advice in addition to software, some customers are turning to the IT Infrastructure Library (ITIL). Originally developed by the British government, ITIL is a set of best practices for IT management that

is galating respect among customers and vendors. Microsoft, for reample, seed TTIL, as the foundation for the Microsoft Operations Framework, in procuraged whose for improving IT systems built with Microsoft products. Once customers began using the procuraging of the procuraging of the procuraging with a procuraging procuraging and begin performing software upon the procurage and configuration changes with a success state above 99%, says Anderson.

Configures oft ships ECM with templates that tell customers how to configure their systems to comply with, for example, security standards from Microsoft and the SANS Institute, says Randy Streu, vice president of product management at Configures of.

manajement at Configuresoft.

With IT staffs reduced by layoffs scrambling to apply more frequent patches to more applications, good processes 'are the only thing that stands between you and madness,' asys Andersen. No matter what software configuration tools vendors come up with, staying sase will require knowing how to use them right. 9

Scheier is a freelance writer in Boylston, Mass. He can be reached at rscheier@

charter.net.

Partitioning mainframes is old het. How vi machines are becoming viable on blade is Outside link 40041

Server Configuration Tools Sampler



Diffects and reports on deviations from corpora policies for configuration of servers and other elements of the IT infrastructure.

Mainview for Linux monitors and manages Linux running on EMFs maintaine z/VM operating system. Patrol for Oracle on Linux monitors and manages Oracle distributes servers.

and achieve configurations; Uniconer Software Debuty distributes patches and other software. Automatically role back critical workstation and

erver configurations to preset standards if they are changed maintains an audit trail of changes. SMS 2003, due in the fall,

Integrates server engagement with strengs management provides automatic policy based changes to server configurations; automatically discovers network attributes to communicate SQL Server note: support for other perform including Unit and Lines; especial lates.

Mainteen for Unit name on BM Itseries maintenes and the 2/MI operating system, Petrol for Oracle name on Linux vehicle reachines on the 2Series and on Intel-based platforms.

A vessely of Whistows, Units and Linux platforms.

Windows NT Server 4.0 and higher, Windows NT Workstation 4.0 and higher, and Microsoft SQL Server 2000 or higher. Windows R.W. Windows NT Server or Workstation 3.5 or higher and Windows 2000 or higher.

> Windows, Linux and AIX rose HP-LIX water nine months.

Priorig begins at \$200 per managed server and \$5 per managed workstation. It requires be-Corean which is \$750 per server and holides software update capabilities. Platral for Deadle on Linux starts at \$1,440 per

starts at \$170 per desicop.

Pricing for each begins at \$859 per solver

Pricing begins at \$995 per surver as

SMS begins at \$1,129 per serv

Pricing begins at \$5,000 for Intel platferms (one server reasonaged) and at \$15,750 for Unix Jupitermedia's.

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E-learning simulation frameworks have become cheaper and easier to deploy, leading many companies to apply them to on-the-job training. By Thomas Hoffman

tomer service representatives in Time Warner Cable Inc.'s Western Ohio division is unsure how to enter a customer service work order into the company's subscriber management database, he clicks on an

e-learning simulation of the application to get a step-by-step tutorial Like other modularized simulations available through Time Warner Cable's internet the work-order simulation (developed using SoftSim from Out-Start Inc. in Roston) lasts only about

five minutes. And because users are able to toggle between the simulation and the subscriber management database, they're able to get on-the-job training in addition to their initial 15 days of classroom training.

"Once we release [customer service representatives) to the field, we'd rather not take them out of production for follow-up training, if it's something we can deliver to the desktop," says John P. Sullivan, director of training and development at Time Warner Cable's Western Ohio division, in Kettering. And although the company hasn't tried to measure the productivity gains that on the job e-learning simulations are providing, he says, "our call center directors are telling

us how valuable this is." Time Warner Cable's experiences with e-learning simulations are consistent with those of other organizations. partment of Agriculture (USDA). Recent improvements in compression technology and wider availability of high-speed nerwork handwidth have made it possible for companies to install simulations throughout corporate networks and intranets while adding high-fidelity multimedia such as streaming audio and video, says Steve Walsh director of marketing at X HI P Technologies ASA in Waltham, Mace. "It's fairly easy now to nut the same information on everybody's desktops and update content as needed" using a

distributed Internet-based approach. says Rich Mesch, vice president of design and development at Strategic Management Group Inc., an e-learning systems provider in Philadelphia. "That's a real boon for business simulation, where business [requirementsl can change daily and companies struggle to get a common message

out to everyone," says Mesch. Plus, intranet, and network-based simulations make it easier for companies to store and track user data, he adds

Widely Dispersed Users The USDA is one organization that's

using simulations as a training resource. In April, the agency began rolling out Cary, N.C.-based Global Knowledge Inc.'s OnDemand simulation system to provide 60,000 secgraphically dispersed federal workers. including about 500 human resources managers, with step-by-step instructions on the use of PeopleSoft Inc.'s PeopleSoft 8.0 human resource man agement system (see "The USDA's

E-Learning Simulation," next page). across the country, "it's very helpful a USDA project director based in

With so many potential users strewn that I don't have to install this on individual machines, that it's available via the Internet," says Hans Heidenreich, RFVITAI 17FF-LEAR



But the biggest drivers of customer adoption of e-learning simulations have been lower costs and the emergence of reusable frameworks that let instructors create and deploy text, audio and video content on the fly "A couple of years ago, you might

hose been talking \$200,000 for an hour-long course," says James Lundy, a vice president at Stamford, Conn. based Gartner Inc. "Today, using still shots instead of custom video, you're ralking \$20,000." And although a highend simulation complete with rich audio and video capabilities can run as high as \$5 million, low-end, text-based simulations can cost as little as \$10,000 to develop, he adds

Overall, simulation systems don't cost as much as they used to, and Webbased technologies are getting easier to deploy and don't require an expensive, high-powered Unix workstation to run them, says Lundy. These days, companies can run Web-based e-learning simulations on a standard PC that's equipped with "a little extra horsepower," he says.

That may help explain why spending on e-learning training is projected to grow by 20% to 30% this year, even

though spending by North American businesses on corporate training remains flat, according to Mike Brennan. an analyst at IDC in Framingham, Mass. Globally, annual spending on e-learning amounts to between \$3 billion and \$4 billion, according to Gart-

per estimates. **Building the Modules**

The framework-based approach, where companies can use simulation templates and simply drop in content for a particular discipline (such as CRM or sales training), has been a shot in the arm for training managers. "What we've seen mature are tools that allow us to reduce the time it takes to build something out," says Garry Moore, director of e-learning at AT&T Business

in Tampa, Fla. Duncan Lennox, chief technology officer and co-founder of Waltham, Mass -hased e-learning software company WBT Systems North America LLC, says framework vendors "provide the plumbing, and the content is the water that flows through our pipes.

Over the past two years, AT&T has focused e-learning simulations in three core areas: software training (both offthe-shelf and proprietary applications), sales training and performance management. AT&T is using a template approach that gives it a simulation framework. "We pour the content into it," says Moore.

It belos that e-learning simulations themselves have potten better. Simularions hised to be very video-game-like. and now they cloudy imitate the real world, some more than others," says IDC's Berner

Refore at heavy developing its own e-learning simulations two years are make a majety of farmanish mandages ATA'T relied on Macromedia Inc's Elash animation refracts New year Moore, "there are a number of prodnets on the market with [graphical meet interfaces that allow was to

create simulations. Most large, ecographically dispersed organizations tend to favor a blended learning approach, where employees can receive training in a variety of formats, including classroom training

CD/ROM-based training they can do in their off-hours and other high- and low-bandwidth approaches. Even though providing bandwidth is part of ATA/T's business, some of its

employees still have low-handwidth connections. For them, AT&T offers several e-learning options that include a TV-news-style "talking heads" motivational piece where low-bandwidth users can see still photos and text in-

Getting Smarter

stead of video, says Moore. Next-peneration systems will include advanced simulation engines, analoexist to decision trees, "that allow the users to flow through a simulation without [the IT department] having to

hard-code everything," says Gartner's. So if a student is running a sales simulation and answers a question wrong. he says, "the system is smart enough to to take you back to a section of the course and do a review of that content. and you're not even aware that the sys-

tem is doing that for you." While many companies are bullish about the knowledge transfer that e-learning simulations have provided

to their employees, most organizations see intent on sticking with a so-called blended learning environment that encompasses e-learning, classroom training and other educational formats. Says Time Warner's Sullivan.

"There's a learning curve that people go through as e-learners. Some people prefer having a person to interact with That's why we haven't done away with instructor-led training, because that's still the most effective way to train."

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look and related services, well our Web site

Standards Drive E-Learning Advances The adoption of a fearming-related stan-

duris by the covernment and cornorations has played a significant min in the advancement of e-learning simulations. The standards that are being introduced include the Sharable Content Object brance Model (SCORM) cart of the IIS Department of Defense's Advanced Distributed Learning (ADL) m tutore as well as several intercontrability ourisines from the Assation Industry

CBT Committee (AICC) SCORM which dictates how content must be packaged to allow for inter-

operability in learning management envergements. Thus become the de facto standard" for e-learning content and management nurtimes sous lack F Lee, president and CEO of Knowledge Management Solutions Inc., an e-learn

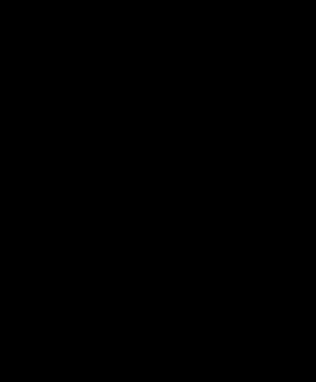
ing systems provider in Linthicum, Md Several standards organizations are discussing the next generation of Web based learning architectures. The AOI Technical Team is working with IMS Global Learning Consortum Inc. and the Institute of Flectocal and Flectonus Fogeneralise, to explore ways to expand upon SCORM in areas such as learner information neolies assessments rists

models and application programming interfaces such as SOM The AICC works on guidelines for the aviation industry in the development. delivery and motustion of commen based training (CBT) and related training technologies. This includes quidelines to enable interoperability between CBT systems that can be used by com-

panies outside of the avietion switch Another standard, the Defense Denartment's High I mad Architecture for Simulation (HLA), is arried at achieving a common technical architecture for use across all classes of simulations within the department, it provides the structural basis for simulation intercontrability. HLA is also being adopted by compa-

nes in the private sector, says Lee. LISDA project director Hans Heidenreich is running a simulation project to provide PeopleSoft human resources macement systems framing to some 60,000 workers. Heidenwich hasn't focused on standards, but he says they? he important down the road.

- Thomas Hoffman



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e-learning simulations two years ago using a variety of framework products.

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Building the Modules

The framework-based approach, where rector of e-learning at AT&T Business in Tampa, Fla.

e-learning simulations have provided to their employees, most organizations are intent on sticking with a so-called blended learning environment that encompasses e-learning, classroom training and other educational formats Says Time Warner's Sullivan

> "There's a learning curve that people no through as e-learners. Some people prefer having a person to interact with That's why we haven't done away with instructor-led training, because that's still the most effective way to train."

HORE RESOURCES For a let of vendors that other entransport sensitives

looks and related services, visil our Web site

themselves have potten better. Simula-

Putting the Pieces Together

IBM's software strategy chief looks for a way to integrate five product groups and provide a common architecture for users.



As vice president of strategy for IBM's \$13 billion software group, Jeanwith Horan says her prime mission is unifying the company's software product groups under a single architecture. Horan had served as vice president for development at IBM's Lous

opment at IBM's Local Software Group, but or the beginning of this year, she took on the broader responsibility of worthing on initiatives that span the entire software group's fee brands — Lona, Weldsphere, DBZ, Tivoli and Bationsi, a development took company IBM acquired in the past year. Horan recently spoke with Computerworld's Carol Silva about her ongoing efforts. Excerps follow:

What have been your areas of focus since taking the smell pill. More of our cuscromers are looking to be able to buy the complete stack of that middlemane, the complete stack of that middlemane, the complete stack of the stack of the work together. So from a technology strategy point of the "we which is really young the stack of the stack of the stack point of the key focus areas that we have for the group — we're looking at the underlying technologies that run access all of the different brazing propations and the stack of the stack areas and of the different brazing propations are stack to the stack and the stack of the stack of the stack integrated, intercoprehip stack.

If you look at the products we have in play, some of them were mainframe/legacy products that are still belong used in many, many enterprise, applications today. Our real focus over
the last couple of years has been moving toward this open-standards-based
platform based on the JZEE openduation manufactor on the JZEE openstandards based
manufactors. What we recognized is
that when you move toward that kind
that when you move toward that kind
of a platform, we will have a lot of op-

portunity to reuse components. A core element of the whole JZEE programming model and Web services is to be able to take specific features or functions and express them in ways that they can be roused in the context of multiple applications.

Cas you she asseption? There were recent Lorus-brand product amountements in the money management system and the Lorus Web-based messiging product. They are applications built on the programming model and built on the programming model and such delivering to other customers. If you look under the covers of one of those products, you will find a Webshere cagaine embedded in the product that cagaine embedded in the product that sing those particular applications. The challenge for us is, How do we



develop and deliver technologies like the WeiSpherr capitale itself in a way that it can be easily consumed by these other applications to that we don't have to reimplement the same functionality by decomposing the products into these componentized models? There the other groups, the other brands, can pick up the pieces that they need and be able to build their own applications much more quickly, if you look at something the the Lows Weiform drawing board to release in less than a year. Weich, or an enterprise

scale product, is pretty impressive.

ISM has had a hodgunodge of technologies in his software products. That certainly is where we've come from, and that's accusably where just abous every customer is today. If you look at the investments constrained to the polication over the last 10 years, they ferrest etacks and different infrastructure layers. So the core part of our strategy is to rebose all of our own applications and our own products onto that common infrastructure layers.

And the common infrastructure toyer is Janz? Absolutely. It's a JZEE-based model.

An year design 100% of the product development has dam? Not 100%. Some of our products are still written in C. C++, and w'll Timble decisions that are appropriate for the particular product or to the control of the c

nincies, are you uning to connect remember? In some cases we are expressing everything as Web services so they can be called using SOAP calls. WSDL [Web Services Description Language] calls, if an application developer chooses to do that But in many cases, when we were using [Enterprise LavaBeans) or we were building out to the component layer in WebSohere itself - depending upon what the application specifically needs, which services it needs, what's the most efficient way, what's the highest-performance way - we really are looking through each application at whatever is the

Are you wrappering or completely reactive leading predested? There are many applications or infrastructure middle-wave that will remain essentially as they are tout will then have the wrappers and in serfaces. With things like MQ or CICS, we're not going to rip those apart. They've stable application environments, and we want to be able to allow

right technology for them to use.

them to participate in the new model. But where it makes sense for some of our other technologies, it really is a rearchitecture. And you see in many cases where that is happening in the Lotus brand, in the Throll brand, [and] with a number of the acquisitions that we've done.

What will be the ultimate houself for contensor? In the enception, look at the investments that they've made over the investments that they've made over the stat for years with their enterprise applications. They tell us that they've got it go more benefit out of that, where it it's an SAP or a PropieSoft or a Siebel implementation. But what they are secing is the real shilling to drive a busiouse process across all of those enterprise applications. That's what they're looking for the state of the s

The other thing that I use is this notion of extended value chain and how do you relate to your suppliers or your channel. Our customers are saying, "OK, I've done the simple things. I've you up a portal as to that my dealers can communicate with me. But what I really want to do it sake it to the next level. I want a new level of integration and automation with all of their systems, substantial or the same of the contract of the contract point of the contract point of the contract point on the first suppliers and dealers."



could herald the future of interactive could necession by design teams. At first plance, the Pittsburgh-based university's "Barn" could be any meet-

ine room, with tables and chairs and a whitehoand But take a closer look and wou'll see comerce projectors



You'll see project tear members log into the Barn by presenting wearable radio-frequency identification tags to an electronic control nanel. They wear sensors that identify them and track their locations as meetings unfold. At their first meeting one of them will enter some group identification data, establishing a perthe project. Fed by information from currences devices the Barn busing recording the meeting in its audio. video and data loes

A student approaches the "Thinking Surface" - an intelligent interactive display built into a digital whitehoard - and sketches out an idea which is theo recorded in the meeting log along with her comments to the group. In response, someone at a table uses an electronic pen to circle a drawing on his PC, causing it to be projected onto the Thinking Surface, where it's also

mounded "Social geometry" software knows the locations of attendees and adjusts lights and microphones accordingly. When a decision is made or an imortani concept comes up, someone hits the TWI - "that was important" - button on his computer, adding a

flag at the appropriate place in the meeting logs. A member of the group who was unable to attend can, via the Barn Web portal later fast-forward through the meeting remotely, pausi at TWI markers. Or he can "attend" the meeting - or any past meeting in its entirety, listening to and reading the meeting loes and studying images

saved from the Thinking Surface The Barn and its Thinking Surface have been constructed to facilitate meetings whose goal is to produce some kind of design, whether software, hardware or a consumer product, says Asim Smallagic, a faculty adviser for the project. "It's for brainstorming, idea generation, knowledge generation and knowledge transfer" he says

The Barn is noteworthy for the sheer number of features researchers thought to add to it, says Ted Selker, a professor at the Media Lab at MIT. "It's a typical CMU project. They are wonderful at doing the kitchen sink of z." Selker praises the Barn's capability to record all aspects of a meeting. "We all feel disturbed about the ephemeral-

ness of conversations. If you have a meeting that you don't talk about again for two weeks, you have basically forgotten it. It didn't exist: Dan Siewiorek, director of the Human-Computer Interaction Institute at Carnerie Mellon, says

large project teams with semi-independent subgroups face a coordination problem — how to ensure that the groups don't make conflicting decisions that that must be undone lat-

er, sometimes at great cost. Siewiorek says future Barn research will tackle that problem by letting a li-

aison in each subgroup audit the meet ings of other groups from afar. But the linison won't have to listen to the entire meeting because the Barn will recognize keywords that the person might be interested in and alert him when a

topic of interest arises. "The Barn software could be checking conversations and ideas and things appearing on the whiteboards, and it something comes up that relates to apother group, the focus of the remote person could be drawn to the current

conversation," Siewiorek explains. Work on IT support for collabora tion more back decades, and the landscape is littered with cool ideas that never went amwhere, says Daniel Bobrow a research fellow at Palo Alto Research Center Inc. He says IT researchers often out technology abend of human factors. "They have a solution they think will help, then they go looking for a problem," he says, "They put in all the technology bells and whistles they can think of, but when they get done, it doesn't fit the practices of the people."

But Siewiorek says CMU researchers consider human issues first, then sechnology, and nontechnical project advisers at the school help with this. For example, one of them suggested that Barn meeting attendees he given har stools to sit on rather than ordinary chairs. "Then they are more likely to get up and walk over to the Thinking Surface and draw, rather than sit and type at their computers," he says, 9

THINK INMAN FACTORS



IT-assisted workspaces can boost design productivity. By Gary H. Anthes

Putting the Pieces Together

IBMs software strategy chief looks for a way to integrate five product groups and provide a common architecture for users.



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What have been your areas of focus street stating the neight 20 hoor of our custtomers are bedoing to be able to buy the complete stack of 1850 middlewers. And they have these strange expectations that these fitness will actually work together. So from a technology work together. So from a technology they one of the key focus areas that we have for the group — we're looking at the underlying technologies that run across all of the different brand groups and how we can move timps formard such that we roully can have this very surgregated, interceptible stack.

unegative state. If you look at the products we have in play some of them were mainframer legacy products that are still being used in many, many enterprise applications today. Our real focus over the last couple of years has been moving in oward this rate of the platform based on the 12EE operation for the platform based on the 12EE operation. When you was the platform based on the 12EE operation of that when you move toward that kind of a platform, we will have a to ti of opportunity to reuse components. A corclement of the whole 12EE programming model and Web services is to be able to take specific features or functions and express them in ways that they can be reused in the context of multiple applications.

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IBM has had a hodopeodo or themboojes in his sethware products. That certainly is where we've come from, and that's actually where just about every customer is today. If you look at the investments is cotay. If you look at the investments customers have made in enterprise applications over the last 10 years, they customers have made in enterprise applications over the last 10 years, they constituted the control in large call for our own applications and our own products onto

And the common infrastructure layer in Jeva's Absolutely. It's a 12EE-based model.

What belooksjest an yes using to consect component's In come clears, we are expressing everything as Web services so they can be called using SOAP calls, WSDI, Web Services Description Languaged calls, if an application developer chooses to do that libst in many cases, when we were usualling out to the component layer in WebSphere Eijest ell—depending upon what the application specifically meeds, which were vices in needs, what's the most efficient way, what's the libst self-control of the way.

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The other thing that I see is this no-



collaboration by design reams At first glance, the Pittsburgh-based university's "Barn" could be any meeting room, with tables and chairs and a

whitehourd. But take a closer look and you'll see cameras, projectors, microphones speakers and electronic pens mounted on



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THINK HUMAN FACTORS In land out, wish our Web sit



IT-assisted workspaces can boost design productivity.

By Gary H. Anthes

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Data Center IDS **Project a Nonstarter**

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Policies, product limitations trip up plans for intrusion-detection system monitoring. By Vince Tuesday

Y COMPANY has good security, but at times it's too good. Occasionally users complain that the level of security is too high. When that happens, we try to work with them to find a way that they can still get their jobs done. But despite our best efforts, we can't always find a solution When that hannens either we in the IT security

group have to bite the huller and accept the SECURITY risk, or the users TANAGER'S

must accept the fact that they can't do what they wanted. Recently, however we were on the re-

ceiving end, when a security project was derailed by prodnet limitations and the noticies of our networking team. The problem came up as we began outfitting and configuring a new data center. It's always a pleasure to work on a "greenfield" IT project because you can avoid compromises made by others in the

past. It seemed the perfect time to update and deploy improvements to our monitoring -facet microscope We currently run host-

based intrusion detection on all desktops and critical servers, and we run networkbased intrusion detection at our perimeter entry and exit points. Although Gartner Inc. analysts recently predicted the ent demise of intrusiondetection systems (IDS), they have worked very well for us, and we're sticking with them in our new data center. We do nee a threat from the increase in encrypted network traffic that's blinding our IDSs. Despite this, our experiences tell

a LAN segment and only the intended recipient reads it. Switches are great for performance and for protecting data in transit, but we need us that a network IDS will concontrolized access to all the

data in teansit so we can monitor it. In the old days, we could configure an IDS server's network adapter to run in promiscuous mode and search the traffic for bad behavior. This doesn't work when connection to a switch Network managers need to see traffic in order to trou-Until now we've limited our bleshoot problems on the net-

work, so network equipment vendors typically include a switch port analyzer, or "span" bandwidth segments port, that can take a copy of over a single connection. We'd love to configure our IDSs to external points. But use the span ports to collect data, but our network monitoring systems are already with high traffic volumes isn't using them

To get around this, some vendors sell taps, which read cetting the data to our sensors. the network data without altering the flow In theory we could tap the span port data

as it heads to the network troubleshooting system and send a copy to our IDS. The problem is that every tap we can find isn't designed for a data center Most devices have one of

those time 9-volt nower converters that you used to see on calculators. I worry that whenever the wire wobbles the power on the tap will go on and off and introduce errors on the tapped line. You can imagine how happy our petwork team would be if we introduced errors on the systems they use to try and find the real errors. This approach was a popularier.

Cisco Systems Inc. sells an IDS cord that fits into a slot in its switches to monitor the switch traffic. This would

solve the problem, but the cost of equipping all of our switches with these devices is prohibitive. Also, we don't like Cisco's management tools for its IDSs and prefer those from our current vendor.

There are vendors that sell specialized systems to conv flows to multiple ports and to you don't contload the IDS with encrypted data it can't analyze However our net-

work team has a simple rule: If it doesn't have a Cisco badge. it doesn't on on the network. The latest Cisco products let you have more than one span port on a switch, but we've had a few performance problems, and the code is relatively untested in our environment. We don't want to nut

potentially unstable code into a new data center. Perhaps it's the perfect long-term solution but we'd like to get the exnanded monitoring in during the deployment rather than add it later. The last idea my team and I

had was to plug the span port into a managed hub and then use that to copy the data and send it to the troubleshooting box and our IDS. We would have an extra item taking up space in the cabinet, but it would be etable and fairly chean, since hubs are old technology. It would even pass the Cisco badge test, we thought,

But there was one problem: Cisco doesn't sell managed bubs anymore. We've got a fair number of spaces around that we could use but these were taken out of service and are destined for the trash. And nutting worn and scuffed equipment into the new data center doesn't seem like a enod idea. So it's back to the drawing board. Meanwhile, if any readers have better ideas. I'd like to hear them.

WHAT DO YOU THINK This week's journel is written by a real security manager. "Woos Trundley." who

name and employer have been disquised for obvious manager. Contact him at vince thurbrand.com, or you the doperson in our forest Quicklink a \$1900 To first a complete archive of our neger's Journels, go online to SECURITY LOG

Voyence Offers Net Configuration Tool

Textus, this week plane to arnounce its integrated Extensible Device Configuration Management Englins, which is designed to help manage the configuration of network devices from more than 20 vendors. The appliance runs on Linux and will be two to existing Voyance customers. The base price is \$50,000 for new continuers.

Compuware Undates Java Took

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Unisys, EMC Offer Recovery Services

Uninys Corp. In Blau Bell, Pa., has partnered with EMC Corp. In Hoplehten, Mans., to provide Uninys ESTOGO and ClearPath maintrame customers with diseaser recovery services based on EMC software. Uninys said it has also become a member of EMC's Authoritied Services Metherst.

Software Helps With Compliance Colorado Springo based Optilus

Inc. last week introduced its Accords Compilance Suits, wh is designed to help companies comply with legislation such a the Sectional Order Act. PAUL A. STRASSMANN

The Search for Synergy Through Consolidation

HE woans synergy and consolidation are always linked with mergers or acquisitions. Public announcements promise huge cost savings. Magazine articles celebrate success. There is, however, no evidence that the promises are actually kept. I don't know of a single verifiable case where IT-related preconsolidation indicators were compared with postconsolidation reactors were compared with postconsolidation reactors were compared with postconsolidation reactors were compared with postconsolidation reactors.

For the past 20 years. I have been tracking the IT costs of corporate information management. For instance, in a Computerworld column in May 2001 [QuickLink 19925], 1 expressed doubts about the effectiveness of J.P. Morgan's outsourcine deal with four IT unplace My observation couldn't be tracked further because at the end of 2000, LP, Morgan merged with the giant Chase Manhattan bank, and its reporting as a separate firm

and its reporting as a separate time ceased. It just so happens that the combined bank (J.P. Morgan Chase) restated its historical financial reports to reflect the combined results. Expenses for "technology and communications" increased from \$2.17 billion in 1998 to \$2.5 billion in 1998 to \$2.5 billion in

The following is a comparison of consolidated premerger (1998-2000) results with postmerger (2001-2002)

Is This Bank Headed in the Wrong Direction?

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data. The analysis is based exclusively on the bank's reports to shareholders and to the Securities and Exchange Commission. It offers a rare glimpse into how the results from IT consolidation can be evaluated (see chart below).

At the time of the merger, the bank's top management said, "We believe this merger will create pretax synergies of \$3 billion, \$2 billion of cost savings and \$1 billion of incremen-

tal net revenue." Most of the synergies would materialize within two years, company officials said. A significant share of the savings would come from a consolidation and integration of information systems.

The table below shows that after the merger, the combined banks had lower revenues and much lower profits. However, it's the deterioration in IT-related ratios that concerns me. The percentage of change in the indicators should

reveal if consolidation delivered synergies. To demonstrate gains, at least one of

gains, at least one of the IT-related ratios would have to show improvement. IT/compensation should decline with rising efficiencies, but it increases 6%. IT/revenue should decline, but it increases 26%. IT/profit and IT/harcholder equity should decline, but they increase 25% and 3%, respectively. Every indicator has turned in the wrong direction. Though deteriorating postureger business conditions could be used as an excuse for the declines in revenues and profits, as a suggest that the expected synergies didn't show us.

Claims of IT savings from consolidations will remain doubful undestitations will remain doubful undestitations will remain doubful undestitation in a well-defined path showing it how the gains would be delivered. It may understanding that IP. Morgan Chaze didn't anticipate the enormous obstacles to achieving systems interparation. How much of this was because of "governance" (that is, organizational politics) and how much camefrom the technical inability to merge from the technical inability to merge the islands of outomation will remain

a well-hidden story The current economic climate favors mergers and acquisitions. In each case, syneray is cited as a primary incentive to proceed. This is particularly true when damaged communications firms or hard-pressed financial services firms combine and centralize IT management. The federal government has also started consolidating information-handling for greater efficiency and to minimize the risk of technological failures. In each case, savines are expected to come from lower IT costs. The disappointments from the amply funded and technologically sophisticated J.P. Morgan Chase IT consolidation should serve as a warning. The road to synergy is studded with mines. Top executives shouldn't promise IT

improvements unless they have taken the trouble to understand what it will take to get the job done. I WART OUR OPINION?

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Data Center IDS Project a Nonstarter

Policies, product limitations trip up plans for intrusion-detection system monitoring, By Vince Tuesday

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Until now, we've limited our IDSs to the perimeter networks because the devices could only bandwidth segments and because no

have a relatively small number of external points Por our newer IDS products support night speeds Coping with high traffic volumes isn't an issue, although we do have

to conquer the complexity of getting the data to our sensors

Switch Disconnect Many years ago, we helped push the deployment of a switched Ethernet LAN With properly configured switches, data goes only to those systems involved in the conversation Traditional managed

hubs, in contrast, send a conv of the data to every system in

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over a single connection. We'd love to configure our IDSs to use the span purts to collect data, but our network monitoring systems are already

To get around this, some vendors sell taps, which read the network data without altering the flow. In theory, we could rap the span port data as it heads to the network troubleshooting system and send a copy to our IDS. The problem is that every tap we can find isn't designed for a

data center Most devices base one of those tiny 9-volt power converters that you payd to see on calculators. I worry that whenever the wire wobbles. the power on the tap will go on and off and introduce crrors on the tapped line. You can imagine how happy our network team would be if we intenduced execut on the curtems they use to try and find the real errors. This approach was a nonstarter.

Cisco Systems Inc. sells an IDS cand that fire into a slot in its switches to monitor the switch traffic. This would

solve the problem, but the cost of equipping all of our switches with these devices is prohibitive. Also we don't like Cisco's management tools for its IDSs and prefer those from

There are vendors that self

specialized systems to copy flows to multiple ports and even tune which data note sent so you don't overload the IDS with encrypted data it can't analyze. However, our network team has a sample rule: If it doesn't have a Cisco badee.

it doesn't go on the network let you have more than one any nort on a switch but we've had a few performance problems and the code is relatively untested in our environmont We don't want to not potentially unstable code into a new data center Berbans it's the needest tone-torm reduction

> but we'd like to set the expanded monitoring in during the deployment rather than add it later The last idea my team and I had was to plus the span port into a managed hub and then

use that to copy the data and send it to the troubleshooting box and our IDS. We would have an extra item taking up space in the cabinet, but it would be stable and fairly cheap, since hubs are old technology, it would even pass the Cisco badge test, we thought.

But there was one problem: Cisco doesn't sell managed hubs anymore. We've out a fair number of spares around that we could use, but these were taken out of service and are ductional for the truck And putting worn and scuffed equipment into the new data center doesn't seem like a good idea. So it's back to the drawing board Meanwhile if any readers have better ideas. I'd like to hear them.

WHAT DO YOU THINK? This week's journal is written by a real security manager "Winds Tyesday" whose

for obvious memors. Contact him at weigh cussion in our forum QuickLink #1590 To find a complete system of our Security Manager's Journals, go prime to O computerworld.com/secjournal

SECURITY LOG

Security Bookshelf

Mailblocks Offers Antispam Service Lee After, Call.-based start

ArcSight Adds XMI

Vovence Offers Net Configuration Tool

Vovence Inc. in Richardson. as this week plans to annce its integrated Extensible ment Engine, which is do than 20 vendoes. The appliance runs on Linux and will be free to existing Voyence customers. T

Compuware Undates Java Tools

Detroit-based Compuware Corp 3.0 of its Optimal J develo nent for enterprise Ja ations. New features inte plup-ies for IBM's Webre Studio Application De n ONE Studio. With the new re se, Compuwere has added a reloper Edition of OptimalJ that includes ende-vira acture analysis tool. Price ion \$5,000 for the Prof Edition and \$10,000 for

Unisvs. EMC Offer Recovery Services

leinus Corn, in Blue Bell, Pa., has red with EMC Corp. in Hookinton, Mass., to provide Uni ES7000 and ClearPath main ry pervices based on EMC re. Unions said it has also a member of EMC's Au

Software Helps With Compliance

DAILL A STRASSMANN

The Search for Synergy Through Consolidation

days. The analysis is based

At the time of the mere-

exclusively on the bank's

HE WORDS Synergy and consolidation are always linked with mergers or acquisitions. Public announcements promise huge cost savings. Magazine articles celebrate success. There is, however, no evidence that the promises are actually kept. I don't know of a single verifiable case where IT-related preconsolidation indicators were compared with postconsolidation results.

For the past 20 years, 1 have been tracking the IT costs of corporate information management. For instance in a Commutencerid column in May 2001 [QuickLink 19925] Lexpressed doubts about the effectiveness of LP. Morgan's outsourcing deal with four IT vendors. My observation couldn't be tracked further because at the end of 2000 LP Morean merced with the giant Chase Manhattan bank and its reporting as a separate firm

ceased. It just so happens that the combined bank (LP. Morgan Chase) restated its historical financial reports to reflect the combined results. Expenses for "technology and communications" increased from \$2.17 billion in 1998 to \$2.55 billion in 2002.

The following is a comparison of consolidated premerger (1998-2000) results with postmerger (2001-2002)

> \$28 SQL \$25.72M

\$27M 22.56M

25.94

20 506 22.7%

846 10 594

39.2% E449

reports to shareholders and to the Securities and Eychange Commission It offers a rare elimpse into how the results from IT consolidation can be evaluated (see chart below) er, the bank's top management said, "We believe this merger will create pretax synergies of \$3 billion. \$2 billion of cost savings

and \$1 billion of incremental net revenue." Most of the synergies would materialize within two years. company officials said. A significant share of the savines would come from a consolidation and integration of information systems.

The table below shows that after the merger, the combined banks had lower revenues and much lower profits. However, it's the deterioration in ITrelated ratios that concerns me. The percentage of change Is This Bank Headed in the Wrong Direction? in the indicators should

reveal if consolidation delivered synervies. To demonstrate gains, at least one of

the IT-related ratios would have to show improvement, IT/com pensation should decline with rising efficiencies, but it increases (%, TT/revenue should decline, but it increases 26%. IT/profit and IT/shareholder equity should decline but they increase 200% and 3% respectively. Every indicator has turned in the wrong direction. Though deteripertine northerner business conditions could be used as an excuse for the duclines in recommon and profits the unfavorable rise in the IT ratios suggests that the expected synenties

didn't show up.

Claims of IT environ from controlls darious will remain doubtful unless there is a well-defined nath showing how the gains would be delivered tree my understanding that I P Morean Chase didn't anticipate the enormous obstacles to achieving systems integration. How much of this was because of "governance" (that is, organizarional politics) and how much came from the technical inability to meree the islands of automation will remain a well-hidden story

The current economic climate favors mensers and acquisitions. In each case, synergy is cited as a primary incentive to proceed. This is particularly true when damaged communications firms or hard-pressed financial services firms combine and centralize IT management. The federal government has also started consolidating information-handling for greater efficiency and to minimize the risk of technological failures. In each case, savings are expected to come from lower IT costs. The disappointments from the amply funded and technologically sophisticated LP. Morean Chase IT consoli-

Top executives shouldn't promise IT improvements unless they have taken the trouble to understand what it will take to get the job done. of for more columns and links to our archives, go to

dation should serve as a warning. The

road to synergy is studded with mines.

Got a mobile or wireless solution so good it's worthy of an award?

Nominate it for Computerworld's "Best Practices in Mobile & Wireless Awards Program!"

Computerworld is seeking IT user-organization case study submissions for consideration and recognition.





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Nominations are welcomed from IT Users/Implementers; Systems Integrators/Consultants; IT vendors on behalf of customers, or, their own In-House Deployment; and PR firms on behalf of clients. Multiple submissions of case studies describing different deployments per company/organization will be considered.

Winners will be featured in a special Computerworld supplement profiling the company and submitted case study.

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Readiness Relies on Talent The Navy is giving its personnel control over career options and training in an effort to retain talent and improve its readiness, says Rear Adm. John Creer Page 36



Team Schein' Saves the Day Henry Schein Inc.'s CIO, lim Harding recruited an in-house data warehouse team after a consulting firm went bankrupt six months into the project Page 36



New IT project managers need

patient, supportive supervision. while they adjust to their new rol says columnist Paul Glen Page 40

ing) ERP systems, and ally, an outsourcer charges a monthly fee to host an

work link. The fee can range from \$300 to more than \$1,000 per user, depending on the vendor, or

ty of ERP and executive ekspticism about the value of inhouse IT are all contributing to the interest in ERP oututives ask, is the ology? Or can an nt value be obtained via a pack ged or out ch?" navo Jeff Kaniso, ma ies, a con

the other hand, CIOs at large com is at the core of the busi farm out. They variously d scribe it as the b evous system or brains of the com-

of course. Here's a look at the debate as

the propert assurance of outcompounder is that draine so gives you the ability to focus nn the company's core mission rather than fiddline with ERP software. In mid-2001, Mission Linen Supply Inc. in Santa Barbara, Calif., faced a major technology overhaul because its aging mainframe couldn't provide the flexible reporting the business increasingly needed. A privately held company that provides linen and uniform services. Mission Linen had grown into an operation with more 3,000 employees in 50 locations But the business hadn't kept pace technologically. After examining the options - including the purchase of a new server system and ERP software - it became clear that the training, additional personnel and capital expenditures required for new ERP software were unattractive. "With the amount of work involved in hiring and bringing our data center up to speed, it seemed much riskier to buy an ERP solution

See Yes! page 34



EST DISADIANTAGES TO CUTSOUNCING EAP are the risks involved in not controlling daily ERP operations inhouse - risks that include devastating downtime and the loss of valuable operational data. Informatica Corn. in Redwood City. Calif., consid-

ered such risks to be too great. Informatica currently uses PeopleSoft Inc.'s ERP

software. Three years ago, the company outsourced the human resources portion of the suite, because "if HR goes down, the business will still continue to run," says Tony Young, senior director of IT applications. But Informatica draws the line there

Two things keep Informatica from moving more of its ERP applications to an ASP. First, because Informatica is in the data analytics business, Young says it already has a "world-class data center." Second, some senior executives perceive outsourcine as simply too risky. "We have no plans to outsource any other ERP-See Not page 34

YES! T

With the amount of work involved in hiring and bringing our data center up to speed, it seemed much risking to buy an ERP solution than outsourcing the entire project.

Continued from page 33
than outsourcing the entire project," says Robert
Szerwo, chief financial officer at Mission Liners.
A thorough investigation of outsourcing alternatives led the company to choose SAP AG software

hosted by BlueStar Solutions Inc., an application service provider (ASP) in Cupertino, Callf. The selection process even included meeting BlueStar's investors and CEO Tom Kelly to make sure that the

vesions and LEO from kerry of many sure trust the company would be in the ERP outsourcing business for the long term. Szerwo says. The upside of the arrangement is that Mission Lineo doesn't have to worry about managing its ERP software Servos seer. The doesn'side is that — ox

with all outsourcing deals — any "gray areas" in the contract can cause headaches, says Tony Mancuso. SAP project manager at Mission Linen. 5 For example, when company growth exceeded expectations. Mission Linen was forced to unserade to a

RISK

We would never consider [outsourcing ERP], because we have always been faught you never hand off the brains of your operation, though you may want to farm out

for extra arms and legs.

Continued from page 33

Continued from page 33 related applications at this time," says Young, Mike Gaynor, the ClO at Federal-Mogal Corp. in Southfield, Mich., is also in that camp. An automotive parts company, Federal-Mogal is facing a mon-

tive parts company, receive stoogal is facing a morstrous ERP integration challenge: It has grown quickly via acquisitions and needs to consolidate at least some of its 27 ERP implementations.

Gaynor says there's no way an outsourcing con-

new server — something that wasn't contemplated in the original cootract, so it cost more, Mancuso says. He advises other businesses to estimate growth potential over the life of the contract to avoid any addi-

tional costs.

For some companies, especially midsize ones, it offen seems impossible to compete with the big companies for the IT taleon needed to install an ERP system and keep il humming. San Jose-based Luminleds Lighting, a joint veoture of Agilent Technologies loc. and Philips Lighting, was lausched in late 1999 without a budget for an IT staff, though it got

1999 without a budget for an 11 start, mough it got one later. "That's how we came to consider oursourcing. We had chosen J.D. Edwards for our ERP software platform, but weren't sure how to source and run it," says Neil Bostock. CFO at Lumileds. Because Lumileds didn't have the money, or the desire, to eather expertise in running a data corter.

Bestock turned to BlueStar to handle all of Lumileds' ERP operations. "ERP is clearly mission-critical. If these applications went down, we would be dend. But we also know we surely couldn't do better on our

own." he says. Boestack says BlueStar has a far greater ability to manage daily ERP operations and a greater depth of resources to handle situations as they arise than Lumileos would if it ran an in-house system. In June, Lumileos would of it from an in-house system, in June, Lumileos signed on for another three years white houseourcer. Borstock says he's not sure his company could ruo ERP in-house for less moner than what it

has paid BlueStar so far.

For both customers, the only real concern about their choice of outsourcing supplier was a general fear about BlueStar's longevity, given the past two years of ecocomic and I'T market troubles. But both

fear about BlueStar's longevity, given the past two
years of economic and IT market troubles. But both
say their concerns have subsided and they're pleased
with the services received.

tractor could nossibly do what needs to be done to

consolidate, manage and maintain those critical applications. It comes down to trust and control.

We feel no outsider could gain enough of our trust to know what it takes to run our business and understand why things need to be done a certain way. We must control the business operations, the business-process development, project management, we have been appropriate that off: be

explains. So far, Rederal-Mogal has managed to integrate three SAP ERP systems into one, and it plans to consolidate nine SAP ERP systems in Europe into one in about a year. "We would never consider (outsourcing ERP applicational, because we have always been taught you never hand off the brains of your operation, though who may want to farm out for extra arms.

One thing Gaynor would consider offloading to an outside service provider is programming in SAP's programming language. "You can keep the brains inhouse and work with a partner to streamline processes, or come up with a more efficient means of system support," he says. 19

DePompa is an independent writer and editor in Germantown, Md. She can be reached at bdepompa@comcast.net.

and legs " says Gaynor

HOW TO GO ABOUT IT

evaluating the outsourcing option:

The only way to judge whether if is a good idee to oursource any of a company's ERP workload is to closely enarrane current in house ERP copabilities to see if they're reely critical to the way the organization conducts busness. If subs a good ride to consider the following when



Figure out your business objectives first, "before outsecuring vendors are invited for brieflags. Don't make vendor delection on registerion your first step," warms Dean Dinsson, an analyst at Mista Group Inc. "Most importantly, appositions need to be realistic and set almost tank, suppositions need to be realistic and set almost of time. Incorrect expectations are the primary reason why outsourcing arrangements are processed as failures.



Don't expect immediate cost savings. The myth that outcourcing is far less expensive than managing ERP applications in house is samply untitue. Says Gartner analyst Robert Andisson. Outsourcing may be more supersive, but it provides easier and more predictable budgeting.



Make sure the vendor is strong in all of the geograpi cal areas of your deployment, including multistic and international operations, Anderson says.



Work with a single point of contact at the outcourcing windor - and make sure that person is responsible for the success of ERP operations. Plus, the contract should provide a clear escalation path to resolve problems, says fundaments.



So sure to manage the outcourcing relationship, and don't become overly dependent on the outcourcer. Outcourcy still requires in house personnel who understand in agricultures and business processes involved, Anderson werps.



Document software revisions and system changes – and heep the documentation in your possession. This information is vital if you must switch outsourcing vendors or bring operators back in-house." he notes.



Treat the contractor's on-site staff like employees. That means requiring them to attend staff meetings and adhere to company schedules.

- Barbara DePompa



Paper Habit

IT replaced 200,000 pieces of paper with a Web database and reporting tool. But employees missed their monthly paper reports.

By Lucas Mearian

HEN EMPLOYEES at Huntington Bane-shares Inc. heard that their beloved paper report — was going to be transformed into a Web-based database, they weren't happy about it.

Complaints came flooding in:

"My manager says I have to have

these [paper] reports for my file every month."

"Tm not going to be able to do my job anymore."

"I can't possibly ask my people to learn this. I'll have to do it for them

learn this. I'll have to do it for them every month."

"You may have saved paper, but

you have just doubled my workload."

And everyone's favorite: "Who
made this decision?"

But the \$28 billion regional bank hold

But the \$20 billion regional balts notaing company, based in Columbius, Ohio, had good reasons for replacing the paper reports. They amounted to 200,000 pages — the equivalent of 40 cartons sent to hundreds of offices every month. That's 2.4 million pages per year.

"As far as our users were concerned, the sun came up every morning and they got their balance sheet and income statement delivered to their desk every month-end," says Raymond Heitzer, IS project leader for corporate profitability systems at Huntington.

The reports had to be mailed via an interoffice distribution system to 2,500 locations for a diverse user group ranging from operations clerks to financial controllers.

nancial controllers. In place of that tidal wave of paper, the bank chose to load the financial data into an Oracle Corp database running on a Unia server and parchased a reporting system from Cyreal Declinery of the Corp database transporting system from Cyreal Declinery of the Corp of the Co

One obvious bearfit of the Webbased reports is that out center managers can now see the balance sheet income reports immediately outlier. Another bearfit is the case with which managers can see and resolve exceptions— items in an account balance that don't match the credits. "We've always had a tot of data in the basel's but it was always never in most.

and columns. Now we can have bur charts of mismatches," Werner says. He says the most expensive piece of the rollout was installing the servers and software and developing reports that were easy enough to use that they didn't require a lot of training for cost center managers.

Currently, Werner says he's working with bank offices to improve the look and content of the online reports by adding and subtracting certain lines



and adding a third page of metrics. The report "is divided into sections, and each section gets a certain amount of report real essee," he says.

report real estates, no asys.

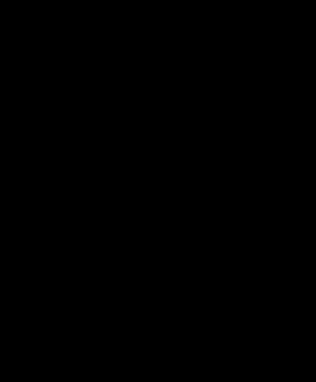
The data, drawn from Excel spreadsheets, mainframes and online analytical processing queties, may also stomeday include each branch's balance sheets, employee turnover, new sales and crossproduct sales, service quality, and credit quality. "That way we can score a branch on how they're doine." Werner saws.

on now they te dough, werene steps.
Golag paperiess has proved difficult for corporate America. Paper consumption by U.S. companies is growing 6% to 5% amusally, according to document technology user group Xplor International in Torrance, Calif.

But Huntington is riding the front of a wave of banks trying to go paperless externally (with online banking statements) and internally to save more, and comply with new regulations, says /orivab Litan, an analyst at Gastner Inc. 'The trend started two years ago, but in the last nine months, it's really been movine sheaff. Ultan saw.

For example, in June, Congress passed the Check Clearing for the 21st Century Act, also known as Check 21, which allows banks to voluntarily exchange electronic images over networks instead of using paper checks. Huntington Bancshares already offers online check images to members.

As for the bank income statements, coot center managers have stopped mourained fields of their beloved paper reports now that they see the benies of the deather took, where says, "We give them the ability too., see details of what is being charged. They can get an image of an invoice that the their cost center. And they're saying, "Wow, those are pretty nice feature," he says, \$\tilde\text{b}\$





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By Lucas Mearian

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princ. a Web-based system for reporting, analysis and information delivery. It took four members and cost a field more than St million to deploy. The resilout was completed in October. One obvious benefit of the Web-based reports is that cost center muragers can now see the balance sheet in come reports immediately online. Another benefit is the case with which managers can see and resolve excep-

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The data, drawn from Excel spreadsheets, mainframes and ordine analysical processing queries, may also someday include each branch's balance sheets, employee turnover new sales and crossproduct sales, service quality and credit oudine. This way we can some a branch

Going paperless has proved difficult for corporate America. Paper consumption by U.S. companies is growing 6% to 8% annually, secording to document technology user group Xplor International in Torrance, Calif.

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to return IT

Readiness Talent

The Navy is giving its workforce the technical tools and information to plan successful careers. By Dan Verton

U.S. NAVY offset launched two years ago is revolutionizing the way sailors plan their careers. It's also ensuring that the Navy puts the person with the right skills in the right job In July 2001, the Navy established Task Force Excel (for *Excellence Through Our Commitment to Education and Learning") to help sailors accelerate learning and improve their proficiency. The program uses advanced trainers and simulators, tailored training programs, mentoring, and performance measurement and

counseling tools.
"We think the right answer is to have one single business process for manpower, personnel and training," says Capt. Steve McShane, Sea Warrior's program manager.

Task Force Excel uses the "Fire Vector Model" for personal and career development. The vectors represent the fire developmental areas of sailor's career, professional development, leader-hiph, management, personal development and performance. By evaluating the Navy's 370,000 jobs in terms of those common vectors, sailors can easily compare positions to better understand the specific requirements of their career oaths, saw disments of their career oaths, saw dis-

Shane.

Some sailors working in IT can now assess their educational and competency levels, identify skills gaps for specific job requirements and map out career puths through the Sea Warrior program using the Career Management System.

(CMS). This Web-enabled portal is currently being piloted by a select group of stillors and Navy civilian personnel.

"You could call it an individual development or career progression plan," says Sandra Smith, team leader for workforce initiatives at the Navy CIO's office. For example, sailors can study the skills required to be a [CO] and plain their career paths accordingly, "Without a tool like this, a lot of people would not be able to develop as effective a career plan as they should," the says.

Setting a Course

Petry Officer Ist Class Anthony Cagle, a job detailer at the Nay's IT commission in Minister In the Nay's IT commission in Minister In the palot project for the past two months. The very useful in determining your next move and where you need to point your career. he says, For example, the system tells workers what

training they need to obtain the certifications required for their next career steps, based on the jobs for which they're best qualified. "Before this system came along, all you had was a career counselor to help

you — provided they were proactive in their own job T. Cagle says. "This puts my career at my fingertips." Sector Chief Petry Officer Patrick Courchess, another IT community personnel detailer using CMS, says a competent career counselor is critical to the process. "CMS gives you a visual prepresentation of what you need to do, but I still think mentoring from career counselors is beneficial." he says.

The Navy is also using portals to help fill unpopular jobs, such as those overseas that require extended periods stationed away from family.

substances unity investigation analysts. For example, the Navy has integrated point in the continue which is the continue to fill select jobs. First, the Navy has been supported by the continue to fill select jobs. First, the Navy has been supported by the continue to t

Abaad of Corporate America
(type Broealis, CEO of recuritive
search firm Alta Associates in Flem
ington, N.J. says the Sea Warrior program pats the Navy light-years shead
of corporate America in terms of human capital management. "What is
unique about the Navy program in that
they take a bolistic approach to career
development," says florc agida. It far
leve scen in my 20 years of recruiting.
It corporations adopted similar plans,

their retention rates would use." In the corporate world, IT workers appling to become senior IT executives are usually forced to rely on "calculated guesswork." Broughts say. "If a developmental opportunity plan was available to them, they could make informed decisions about ratining, certifications and job opportunities based on their career work."

But with budgets tight, the Navy knows it can't simply throw money and new technology at every workforce challenge. That's where Project SAIL comes in. Still a work in progress, Proiect SAIL (Sailor Advocacy Through Interactive Leadership) is moving the Navy toward an interactive distribution system that in the future may include nonmonetary incentives such as guaranteed schools for high-performing personnel or engranteed jobs. Even the \$6.9 billion New/Marine Corps Intranct (N/MCI) program is petting in on the act, says Rear Adm. John Cryer, commander of the Naval Network and Space Operations Command. The N/MCI program now takes IT workers coming off of a sea-duty tour and assigns them to a guaranteed two-to-three-year shore-duty job

working with industry and studying for various industry-standard IT and security certifications. "The roal is to return IT 'top guns'

to the fleet," Cryer says.

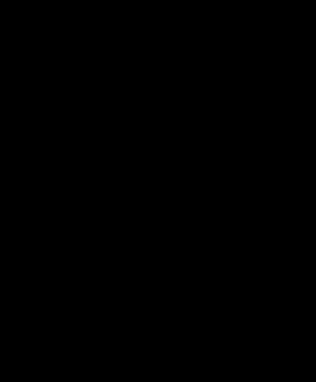
And developing such talent within
the ranks is critical to the Navy's readiness, says McShane. "In the 21st centu-

On the finest.

In this section we are a section of the finest.

In this section we are a section of the finest of

ry Navy, we are going to be relying on a more lethal force with greater technological caposibilities than anything we've seen in the last 50 years," he says, "And the only way we can compete for talent in America is to make sure we improve our HR systems. We don't necessarily need the best and the brightest talent, but the right ratem?" 9 brightest talent, but the right ratem? 19



Readiness

The Navy is giving its workforce the technical tools and information to plan successful careers. By Dan Verton

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better understand the specific require ments of their career paths, says Mc-Some sailors working in IT can now assess their educational and competency levels, identify skills gaps for specific job requirements and map out career puths through the Sea Warrior program using the Career Management System

(CMS). This Web-enabled portal is currently being niloted by a select group of sailors and Navy civilian personnel. "You could call it an individual de-

velopment or carrier progression plan." says Sundra Smith, team leader for workforce initiatives at the Navy CIO's office. For example, sailors can stud the skills required to be a CIO and plan their career paths accordingly. "Without a tool like this, a lot of people would not be able to develop as effective a career plan as they should," she says.

Setting a Course Petty Officer 1st Class Anthony Carle.

a job detailer at the Navy's IT community in Millington, Tenn., has been participating in the pilot project for the past two months. "It's very useful in determining your next move and where you need to point your careet," he says. For example, the system tells workers what training they need to obtain the certifications required for their next career

steps, based on the jobs for which they're best qualified. "Before this system came along, all you had was a career counselor to help

you - provided they were proactive in their own job," Cagle says. "This puts my career at my fingerties." Senior Chief Petty Officer Patrick Courchene, another IT community personnel detailer using CMS, says a competent career counselor is critical to the process. "CMS gives you a visual

resentation of what you need to do. but I still think mentoring from career counselors is beneficial," be says.

The New is also using portals to help fill unpopular jobs, such as those overseas that require extended periods

stationed away from family. For example, the Navy has integrated nov incentives with online reverse assetions to fill select jobs. First, the Navy sets a bonus pay cap for a particular job (such as \$500 extra per month). The bids for incentive pay decrease as com petition increases, so the Navy saves money, "It's an optimal distribution system but it's voluntary" says McShane. "Everybody's going willingly."

Ahead of Corporate America

Joyce Brocardia, CEO of executive search firm Aita Associates in Flemington, N.J., says the Sea Warrior program puts the Navy light-years ahead of corporate America in terms of human capital management. "What is unique about the Navy program is that they take a holistic approach to career development," says Brocaglia. "It far exceeds any corporate program that I've seen in my 20 years of recruiting. If comorations adopted similar plans. their retention rates would sour

In the corporate world, IT workers aspiring to become senior IT executives are usually forced to rely on "calculated guesswork," Brocaglia says. If a developmental opportunity plan was available to them, they could make informed decisions about training, certifications and job opportunities based on their career goals."

But with budgets tight, the Navy knows it can't simply throw money and new technology at every workforce challenge. That's where Project SAIL comes in Still a work in progress. Project SAIL (Sailor Advocacy Through Interactive Leadership) is moving the Navy toward an interactive distribution system that in the future may include nonmonetary incentives such as guaranteed schools for high-nerforming personnel or guaranteed jobs.

Even the \$6.9 billion Navy/Marine Corps Intranct (N/MCI) program is setting in on the act, says Rear Adm. John Cryer, commander of the Naval Network and Space Operations Command. The N/MCI program now takes IT workers coming off of a sea-duty tour and assigns them to a guar two-to-three-year shore-duty job working with industry and studying

security certifications

for various industry-standard IT and "The goal is to return IT 'top guns' to the fleet," Cryer says. And developing such talent within the ranks is critical to the Navy's readiness, says McShane. "In the Zist centu-

ry Navy, we are going to be relying on a more lethal force with greater tech pological capabilities than anything we've seen in the last 50 years," he says. "And the only way we can compete for talent in America is to make sure we improve our HR systems. We don't necessarily need the best and the brightest talent, but the right talent." 9



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ST COMPANIES MORE receive of data shout their customers. The IT hallenge has been here of immediately to changes in sales

and customer preferences Henry Schein Inc. has it facured out The \$28 billion Melville, NY-based distributor at health care products has designed and built a data warehouse with a standare in-house ream of six 11 from consultants

But that wasn't the original strategy CIO Jum Harding was he hared an advisory team from dot-com consultance Marchifest, but that community went bankeups in 2001

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Finding People for Tools Recense Harding had chosen two key

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Monahan hared three people from curside project director Darill Kells. data modelor Christine Bites, and front-end specialist Rena Levy, who's

An emphasis in well as user support Down Sun, who handles extract, reinstorm and load issues, and database administrator lonal Uddon hold two other key positions. Another team member is not and in from Schein's an-

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with a lot of expertise right out of the care." Harding says It was the kind of days warehousing experience that

non-bert when Marchburg folded That expertise is important because without it. There's a whole bunch of will comble muchly that are made by a data warehouse team that tries to mount at by themselves," says Ralph Kumball, ambor of a series of data warehousing books and president of Ralph Kimball Associates Inc. in Boul-

der Crock Chilif The six months with the consultants weren't a complete waste. Hardine

Henry Schein Inc responsible for the over interface and

says, because they left him with design and rollout plans, although they had to be revised significantly Besides having the right skills, the other top priority was ensuring data quality. "It seems kind of obvious," says

Harding Their cometimes these projects forest about laughts), and then the data warehouse ends up being worthless. bocause nobudy trusts it At the outset of the project, the team inners reacht about 125 potential business users to determine the informa-

tion they needed to access and the reports they wanted to see. Plus, the team analyzed the old retror to ports and the condition of the data housed in the company's

ore transaction system Monahan way those steps brought to light the importance of cleansing data in a system that's designed for transactional purposes but not suitable for a data warehouse. That led to a lone peried of standardizing transactional codes in order to produce the sales reporting that

business analysts needed Consultants can be valuable at the ourset, but it's the in-house people who have 'this gold coin of knowledge ut how their systems really work which data is really good and not so good. and how the end users really want to use the data," Kimball says

Data quality is the hardest part of the project, because it's very timeconsuming and detailed, and not everyone appreciates it unless they've been through a couple (of projects). like Daryll (has]," Harding says. And there were not another tedious

obstacle. The data warehouse was designed to provide a very granular level of detail about customers, "so we can slice and dice at will." Harding says. But the result was sluggish system performanage Souther to unconstant summer are tables to make the operies work faster. and those tables needed to be tested. It was a lengthy process. Harding says. but in the end, it worked very well.

Never-Ending Job

The source has taken well over two years. The vestern went live 18 months ago but "really came into its own" in Inhruse: Harding care

Of course, building a data warehouse is a never conding job. New companies. are acquired, products are added, onetomers come and so, and new features and enhancements are oncoine But from an LF standpoint, the data warehouse is complete and has 85% of the dura from the core transactional system. The next major goal is to provide the European operation with its own data warehouse system and tie it into

Harding says his project wall surely matify the costs, but he lacks bord nonbers "We didn't have a formal ROI that you could track later I don't even know how you would do it " he says. "The reason we're doing (the project) is because of the value it brines to the business

Lou Ferraro, vice president and general manager of Schein's medical group, says the business benefits are outstanding He can now figure out who his most profitable customers are target

> promotions and look at the business by product categories or sales territories. Ferraro says the data warehouse also beins select customers for direct-mail mor-

keting campaigns that range "upward of 25 million pieces annually."

One of the most valuable features of the data warehouse has been the ability to add fields to reports, "Once you create a basic report.

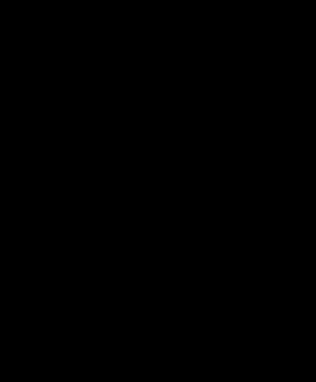
draw a conclusion [and] drill further broad on those accumptions, it allows you to use that data and go even further, as opposed to creating a new report. and another and another," Ferraro says. The IT department used to create, edit, revise, run, downhad, reprugram and print piles of paper repurts - daih, weekly, monthly and quarterly - for the analysis of sales and market trends. But today, business users search, sort and drill down for that information

themselves in a fraction of the time. The data warehouse has been as to part of our culture," says Harding, "It's got that kind of aura about it within the company."



Its consulting firm went bankrupt six months into the project. So Henry Schein Inc. hired its own team of experts to complete a data warehouse. By Jean Consilvio





OFT COMPLANTS STORE reams of data about their customers. The IT challenge has been how to integrate and massage that information so the business side can rediately to changes in sales

of customer perferences Henry Schein Inc. has it figured out. The \$2.8 billion Mebrille, N.Y.-based distributor of health care products has designed and built a data warehouse with a standing in-house team of six IT professionals - and little or no help

But that wasn't the original strategy. CIO lim Harding says he bired an advisory team from dot-com consultancy MarchFirst, but that company went bankrupt in 2001. six months into the project

It was a rocky start. Harding says he knew that having the right skills was critical to the data warehouse project, vet at the time. Schein had zero ware housing experience in its IT shop. So he and Grace Monahan, vice president of business systems, hired people for what they call "Team Schein

Finding People for Tools

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MicroStrategy Inc. — the focus was on finding people who had experience with those tools Monahan hired three people from

outside: project director Daryll Kelly. Assa modeler Christine Bates and front-end specialist Rena Levy, who's responsible for the user interface and fara analysis as well as user support and training

Dawen Sun, who handles extract. rransform and load issues, and database administrator Ismil I Iddin hold two other key positions. Another team member is rotated in from Schein's an-"You really need to have your own

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Never-Ending Job

The journey has taken well over two years. The system went live 18 months our but "really came into its own" in

February, Harding says. Of course, building a data warehouse is a never-ending job New companies are acquired, products are added, customers come and go, and new features and enhancements are ongoing. But from an IT standpoint, the data warehouse is complete and has 85% of the data from the core transactional system. The next major goal is to provide the European operation with its own data warehouse system and tie it into the one in the U.S.

Harding says his project will surely justify the costs, but he lacks hard num here. "We didn't have a formal ROI that you could track later. I don't even know how you would do it " he says. "The reason we're doing (the project) is because of the value it brings to the husiness." Lou Ferraro, vice president and general manager of Schein's medical group, says the business benefits are outstanding. He can now fig. ure out who his most prof-

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Saves the Day Its consulting firm went bankrupt six months into the project. So Henry Schein Inc. hired its own team of experts to complete a data warehouse. By Jean Consilvio







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Nurture the New Project Manager

AN YOU IMAGINE a subordinate lending a sympathetic ear to his newly promoted supervisor? What would be say? "Well, boss, I see that you're having a difficult time adjusting to your new power. That must be tough. I can really empathize

with your difficulties. How can I help?" Not going to happen. New IT project managers never set this sort of support. It's much more common that they get grudging compliance and whispered rescotments. Yet it's a time when they oeed

support more than ever Bookstores overflow with books on being a manager but rarely do they discuss the difficult transition of becoming a Whether you're manag-

ing new managers or are a first-time project manager. pay close attention to the period of transition from individual contributor to manager. Becoming a manager requires more than just learning a new set of skills; it requires a redefinition of self.

Two of the most common problems that plague first-time managers are attitudes they have toward their old job and their new one.

"Just let me do it." The first problem is an inability to delegate. We all learn to derive at least part of our satisfaction from feelings of competence. We develop skills that allow us to accomplish tasks and then feel good about those achievements. We are rewarded for our competence with money, praise and position. When rewarded with a promotion to project manager, one of the challenges is to abandoo the past

sources of competence

for new ones. A new manager faces the difficult iob of supervising others who are developing and using the skills that the manager has spent a lifetime anphying. Since new man agers are often among the most capable people with those skills, they feel frustrated by trying to work with others who aren't as capable as they are.

The manager's first impulse is to think. "Get out of my way and let me do it. It'll take longer for me to explain it to you than to do it myself." Of course, doing this will not

only alienate staffers, but will also prevent them from growing into their new roles New managers need to diminish their dependence on old skills in fa-

vor of developing new ones. "I already lenow what my new job is

The second problem is that not only are new managers burdened with the success they achieved in their previous roles, but they are also burdened with preconceived notions about the role of a manager

Individual contributors have an idea of what they think the boss's job is. Frequently, that concept is based on the idea that a supervisor's job is to do the following:

■ Descride tack direction Offer protection from political

Represent the needs and desires of the team to senior management. Although these are all valid compopents of a manager's job, they represent only a small part of the whole picture - only those parts directly related to the obvious oceds of subordinates.

While each new manager brings a unique point of view to the job, it's inevitably a view that's limited by the experience of being a team member. This limited vision of the role of manager can be very difficult to

dislader. If a new manager brings very strong emotional associations with his own previous managers, he may be very dedicated initially to their ideas of the role. Some may be intent on emulating the management style of a beloved mentor. Others may find their ideas governed by avoiding the behaviors of poor managers.

Regardless of the source of such initial conceptions, understanding more fully the wider role of a manager requires both abandoning preconceived notions and accepting orw ones. Neither of these is easy.

It typically takes new managers a year or more to begin to appreciate all the things that they doo't know about the new role

New managers require potient supervisors and mentors to survive the trial of the first months in the role They need to be monitored and sunported during what is inevitably an emotionally trying experience. And they must realize that it's nor-

mal to feel stressed, confirsed and exhausted during the transition. WANT OUR OPINIONS

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Y2k uperades beloed push commonies to take advantage of new Web-based technologies. the ungrade to Triple DES may help low the foundation for new point-of-sale and ATM services, such as hill naving.

Bank One Corn in Chicago for instance, has decided to replace all 4,000 of its ATMs with Triple DES-compliant models over the next three years. That effort began in March and will cost at least \$150 million, according to a Bank One snokeswoman. In addition to being more secure, the new machines will be Web-enabled and ready to support a host of new features such as online hill payment. account aggregation and brokerage services

DES is designed to protect versonal identification numhers (PIN) entered at ATMs and point-of-sale devices, but using brute-force computing power in a process called an "exhaustion attack." it's possible to unscramble DES-protorted information

Industry Conversion Led by Purchase, N.Y.-based MasterCard, the major elec-

tronic funds companies began seeking an industry conve sion to Triple DES several years ago. But with the deadlines looming, banks and retailers are only beginning to deal with the costly conversion, and they're now calling for deadline extensions. Mam of the nation's 360,000 ATMs will have to be replaced to comply, as will some back-end systems. Many applications will have to be rewritten to

handle Triple DES. The total cost will be stagsering. A new ATM can cost as much as \$50,000; costs will range from \$1,000 to \$5,000 for ATMs that can be unered. ed, according to financial industry analysts. Hardware security modules, which sit on transaction servers and process DES kess can cost up to \$50,000 each Kurt Helwig, executive di-

rector of the Electronic Funds Transfer Association in Washington, said the effort to replace or upgrade old systems will be huge, and financial firms are fumine.

"[Banks] feel they're being asked to bear this burden on behalf of the industry, when it's a problem that's not such a grave threat," said Helwig. whose organization has 600 members including banks ATM networks and technolo-

ey vendors. "Everyone is convinced that Triple DES is a good idea," said Andi Coleman, Tandem security tenm leader at Charlotte, N.C.-based Bank of America Corp., who heads a special interest group on secu-

rity for the ITUG HP NonStop user group. Coleman said she has no doubt that financial services companies will meet the requirements, but she's concerned about whether ATMs widely deployed at retail establishments, which are operated by independent networks, will also comply. "If

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ever there is a weak link ... it's going to be there," she said. Star Systems, which is owned by Memphis-based Concord FFS Inc., completed a two-month Triple DES upgrade on its network switches shoot six months sen. I you said the effort was relatively simple and involved updating software on 30 host security

For banks and transaction

modules - appliances that contain the keycodes for encrypting and decrypting PINs. processors, the Triple DES upgrades involve replacing ATM Trinle DES Deadlines

house an interrated circuit board that encrypts PINs before they're sent to the machine's internal processor Currently the PINs are transferred over a 2-foot cable in

the clear before being encrypted, said lerry Silva, an analyst at TowerGroup in Needham Mass ATM processing coffeeen will also have to be upgraded.

Charles Kennedy a partner at the law office of Morrison & Forester LLP in Washington, said industry mandates create a "standard of care" that give state and federal regulasors the legal footbold to steo in with enforcement proceedings. Those regulators can impose fines on institutions that suffer security breaches because they lack Triple DES Kennedy said

The U.S. Department of the Treasury and the U.S. Federal Reserve Bank currently use Triple DES, a standard that has been adopted by the American National Standards Institute and the International Standards Organization as well.

Continued from page 1 California

avoid a repeat of the situation that led to the undoing of its former Department of Information Technology (DOIT).

At a meeting in Sacramento. Kelso outlined on IT covernance proposal be crafted at the poverpor's request, a version of which is now before the state legislature. The pronosal specifies the technology procurement responsibilities that would be given to various provernment entities, including his office the state's finance and general services departments, the managers of its data centers and the CIOs of

individual agencies For example, the hill mandates that the state CIO focus on strategic planning and gives the finance department the ultimate authority to approve and fund IT projects, as well as project oversight duties. The legislation includes Kelso's own recommendations on how to govern IT, but Gov.

Gray Davis has yet to say whether he would sign the current werelon of the bill In a phone interview after the meeting. Kelso pointed to obstacles such as a massive state budget crunch and a bid

to recall Davis, whose critics used the administration's role in the licensing deal with Oracle Corp. to help put the recall effort in motion. But. Kelso said, his office has initiated programs to streamline the state's IT procurement process and has developed new spending oversight rules and procurement training programs.

Consolidation Plans

The state is also moving ahead with data center realignment and consolidation efforts, Kelso noted. For instance, by next July, it at last plans to consolidate a data center that contains personnel records on state workers and the IT facilito for its basish and burnen services agency under a single administrative entity, a project that has been on the drawing

board for the past decade. However, Kelso said that achieving all the IT procurement improvements be has in mind and rearring the anticipoted cost savings on technoloer purchases will require a multivear effort. "There are still way too many hurdles in large, complex procurement

projects," he said. With its many agencies and departments, California's sovernment is one of the hispest enterprises in the world, Kelso noted. But the state "doesn't really have good enough information about many of its systems and infrastructure," be said. That makes it impossible to cost-effectionly launch and

manage potential statewide technology initiatives. State auditor Elaine Howle last year sharply criticized the Oracle deal in a report that helped fuel the debate over the propriety of the software

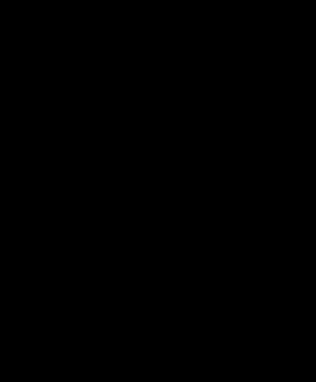
contract [QuickLink 29291]. Howle said her department has not to do a detailed analy sis of Kelso's proposed IT governance program, but on

the surface, it appears to be "going in the right direction." Howle added that after her staffers interviewed government and private-sector IT executives last year to get recommendations for restructurine the state's approach to technology spending, it became clear that a CIO who could take responsibility for strategic planning was needed.

That position didn't exist under the old DOIT, Howle said. Kelso initially took over management of the DOIT on an interim basis and then was named state CIO after the IT sounce was dissolved at the end of June 2002. He currently works with California's various state agencies with belp from two deputy CIOs.

Kelso said there is more of an atmosphere of collaboration and tweet then existed up. der the DOIT, which was viewed by some state officials as "a competitor." For example, there are now regular meetings between Kelso.

agency data center staffs and finance department officials.



Continued from page 1 Encryption

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services, such as bill paying. Bank One Corp. in Chicago for instance has decided to replace all 4,000 of its ATMs with Triple DES-compliant models over the next three years. That effort began in March and will cost at least \$150 million according to a Bank One spokeswoman. In addition to being more secure. the new machines will be Web-enabled and ready to such as online bill payment, account aggregation and bro-

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At a meeting in Sacramento,

California

rity for the ITHG HP NonSton mar group Coloman said she has no doubt that financial services companies will meet the requirements, but she's concerned about whether ATMs widely deployed at rerad marshighments, which are

operated by independent networks will also comply. "If over there is a weak link . It's going to be there," she said. Star Systems, which is owned by Memphis-based Concord FFS Inc., completed a two-month Triple DES upgrade on its network switches about six months ago. Lynn said the effort was relatively simple and involved undating

software on 30 bost security modules - appliances that contain the keycodes for encrypting and decrypting PINs. processors, the Triple DES upgrades involve replacing ATM

Gray Davis has yet to say

whether he would sien the

current version of the bill.

In a phone interview after

the meeting. Kelso pointed to

state budget crunch and a bid

to secoll Danie whose critics

used the administration's role

in the licensing deal with

Oracle Corp. to belp put the

recall effort in motion. But.

Kelso said his office has initi-

ated programs to streamline

the state's IT procurement

process and has developed

new spending oversight rules

obstacles such as a massive

house an integrated circuit fore they're sent to the ma-- bine's internal resources Currently, the PINs are trans ferred over a 2-feet cable in

Triple DFS Deadlines

keyboards with keyboards that board that encrypts PINs bethe clear before being encreated and lerry Silva an Needham Mass. ATM nns: pering software will also have to be upgraded Charles Kenneds, a partner

at the law office of Morrison & Exerctor LLD in Washings events a "standard of care that give state and federal resulators the legal footbold to sten in with enforcement procondinue Those regulators can impose fines on institutions that suffer security breaches because they lock Triple DES, Kennedy said. The U.S. Department of the Treasury and the U.S. Foderal Reserve Bank currently use been adopted by the American National Standards Institute and the International Stan-Jon's Organization as well 1

board for the past decade. the surface. It appears to be However, Kelso said that going in the right direction." Howie added that after her whicking all the IT procurement improvements he has in staffers interviewed covernment and private-sector IT exmind and reaping the anticipated cost savings on technolocutives last year to not recogy purchases will require a ammendations for restructor multivear effort. "There are ing the state's approach to still way too many hundles in technology spending, it belarge, complex procurement came clear that a CIO who could take responsibility for strategic planning was needed. With its many agencies and

That position didn't exist under the old DOLT. Howle said Kelso initially took over management of the DOIT on an interim basis and then was named state CIO after the IT aconcy was dissolved at the end of June 2002. He currently works with California's various state arencies with help

an atmosphere of collaborarion and trust than existed undur the DOTT which was viewed by some state officials as "a competitor." For example, there are now regular meetings between Kelso.

from two deputy CIOs. Kalen said there is more of

ngency data center staffs and finance department officials.

and procurement training programs Consolidation Plans

The state is also moving ahead with data center realignment and consolidation efforts. Kelso noted. For instance, by next luly, it at last plans to consolidate a data center that contains personnel records on state workers and the IT facility for its health and human. services agency under a single administrative entity, a project

that has been on the drawing

contract [QuickLink 29291]. Howle said her department has yet to do a detailed analysis of Kelso's proposed IT governance program, but on

projects," he said

departments California's vove-

ernment is one of the burnest

noted But the state "doesn't

enterprises in the world, Kelso

really have good enough infor-

mation about many of its sys-

said. That makes it impossible

to cost-effectively launch and

State auditor Elaine Howle

last year sharply criticized the

Oracle deal in a renor that

helped fuel the debate over

the propriety of the software

manage potential statewide

technology initiatives.

tems and infrastructure," he

An analysis of the arts and a super section in Comparison and the art Comparison and the art of the art of the arts and a super section in Comparison and the art of the art of the arts and are the arts and art of the arts and arts and arts are the arts and arts are the arts are the



EDANK HAVES . ERANKLY SPEAKING

How to Compete

AN YOU COMPETE AGAINST OUTSOURCING? Sure you can. Are you competing against outsourcing? Probably not. Why not? Probably because you think the decision to outsource or not to outsource is one that's outside vour control. You figure no one will ask you whether your IT shop's work should be shipped to India or Canada or Ireland or China or even just to some army of cube slaves on the other side of town

And you're right - by the time you're informed of the decision. it's too late. By then, the deal is done.

But that doesn't mean you can't compete right now.

Maybe it seems impossible. After all, you know what outsourcing has to offer: technical proficiency economies of scale and - in the case of offshoring - cheaper labor. How the beck do you compete with that? Sure, investments in training will help. But you'll never get an outsourcer's economies of scale. And there's no way you can match that offshore price.

But that's not bow you compete effectively anyway. Think about it: How many software vendors have successfully competed against Microsoft by building word processors and PowerPoint knockoffs?

You don't compete effectively by trying just to match the other guy's strengths. You compete by doing what the other guy can't do. And what can a corporate IT shop do that hired suns can't? You can leverage your intimate knowledge of the business and how it works. You can build close relationships with users. You can really understand your company - how it really works, why decisions are really

made, what customers really need. There are advantages to being part of the orcanization. You're close enough to spot situations before they become problems and to recognize problems before they en critical. Outsiders have a

harder time doing that Outsiders - outsourcers - also have trouble being flexible when it's firefighting time. They can't react as quickly or throw as much expertise at sudden crises. They've got dozens or hundreds of corporate customers whose needs they have

to juggle. You've got one. And outsourcers know where their primary responsibility lies: with their profit margins. They'll always

be looking for ways to maximize their own income, not your company's success. Sure. they'll want your company to succeed - they won't get paid otherwise. But their customers' success will always have to be priority No. 2 at best.

For you, it can be lob I. In fact, it had better be. Those are your competitive advantages. Ob. you've got one more: You already own your organization's IT work. Right now - and at least until your CEO starts thinking seriously about sending that work somewhere else - the job is

women to lose So you still have the chance to make your IT shop competitive. You still have time to get in close with users, to think two steps ahead to spot what they'll need, to fine-tune your processes so you're delivering exactly what the business requires instead of the generic IT services an outsourcer provides.

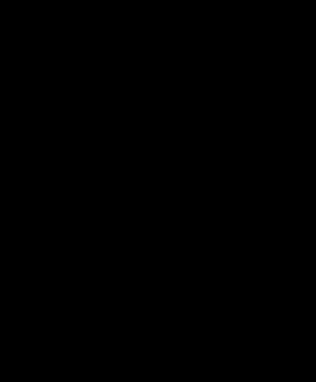
Most of all, you have the opportunity to make users, managers and executives happy with the quality and effectiveness of what they're setting from your IT shop. Satisfied customers don't look for a replacement — and they'll pay a premium if they're sure they're setting their mon-

ey's worth. That's the strongest competitive advantage of all. And if you're really that focused on what your users and business need, you will be delivering their money's worth - in a way you probably never would if you didn't

take the need to compete against outsourcing seriously. Sure, you can compete against outsourcers. You may even make it so tough for them to compete with your IT shop that they'll never

ave a chance. The real question is, will you?





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haven't been affected.

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